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# **NEW WORLD COMING:**

## **AMERICAN SECURITY IN THE 21<sup>ST</sup> CENTURY**

### **SUPPORTING RESEARCH AND ANALYSIS**

The Phase I Report on the Emerging Global Security Environment  
for the First Quarter of the 21<sup>st</sup> Century

*The United States Commission on National Security/21<sup>st</sup> Century*

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## Foreword

Over 50 years ago, President Harry Truman signed into law the National Security Act of 1947, the landmark U.S. national security legislation of the latter half of the 20th century. That Act brought the U.S. Armed Forces together under the Secretary of Defense and established the National Security Council to integrate all aspects of our nation's power. The 1947 legislation has served us well, providing us a template with which to deal with our primary challenge of the last half of the century—the Soviet Union. It underrigderd our diplomatic efforts, provided the basis to establish our military capabilities, and focused our intelligence assets.

Some things do not change. The survival and security of the United States remain our priority, we still cherish our freedom and the promise of a good life, and we remain committed to our friends and allies. But in the future our national security system will have to consider a world of chemicals and biological agents as well as nuclear weapons and conventional armies. We will find ourselves challenged with protecting the information networks on which our banking systems and public services will depend, the disruption of which could paralyze our economy and pose literally life-threatening dangers. Our potential adversaries will range from great military powers to “rogue” states to international criminals to malicious hackers. Future battlefields may extend beyond the air, the land, and the sea into both outer space and cyberspace.

We are changing as a nation, as well, as our human complexion, values, and skill-sets evolve. Economic recessions, environmental degradation, and the spread of disease all have the potential to tear at our nation's social fabric, which is the very foundation upon which we stand.

The thinking behind the 1947 law was rooted in the experiences of the Second World War and the earliest days of the Cold War. Fifty years without fundamental revision is a long time for any policy structure to endure, particularly during a period of such vast change. In 1997, U.S. lawmakers recognized that the country needed to conduct a thorough study of U.S. national security processes and structures. In mid-1998, that study was chartered by the Secretary of Defense under the provisions of the Federal Advisory Commission Act and endorsed by the White House and Congressional leadership. Thus was the U.S. Commission on National Security/21<sup>st</sup> Century (USCNS/21) born.

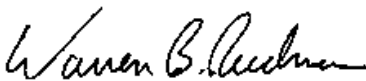
The Commission held its first business meeting in October 1998. Since then, it has conducted its effort in three phases, the latter two each designed to build upon what has come before:

*New World Coming:* The first phase, represented by this Report, explores the world developing between now and 2025. It identifies what we can anticipate, as well as areas that may remain uncertain or subject to dramatic change. It also tries to understand what we will look like as a nation over the next 25 years, and how we will fit into the world at large.

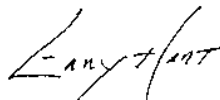
*Seeking a National Strategy:* The second phase will develop an overview of U.S. strategic interests and objectives for the next 25 years. It will describe an overall national security philosophy and a strategy to support those interests and objectives.

*Building for Peace:* The third phase of the effort will examine our current legislation, government structure, and policy integration process to determine the extent to which the system inspired in 1947 supports our needs for the 21<sup>st</sup> century. To the extent that it does not, changes will be proposed for implementation.

This Report represents the culmination of phase I of our efforts. We trust that it will prove to be the sturdy foundation we need to build the rest of the study. We believe it is that foundation.



Warren Rudman



Gary Hart

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## Preface

The United States Commission on National Security/21<sup>st</sup> Century was chartered to provide the most comprehensive government-sponsored review of U.S. national security in more than 50 years. The Commission's tasks are three:

First, to analyze the emerging international security environment;

Next, to develop a U.S. national security strategy appropriate to that environment;

Finally, to assess the various security institutions for their current relevance to the effective and efficient implementation of that strategy, and to recommend adjustments as necessary.

In sum, this Commission seeks to promote the security interests of the nation and its citizens at home and abroad, to safeguard American institutions and values, and, ultimately, to preserve the independence and well being of the United States for succeeding generations of Americans.

It has fallen to us, just as it has to all generations since the founding of the Republic, to "provide for the common defense." We do so, moreover, at a time when the international landscape is changing rapidly in the wake of the Cold War. Our security institutions, fashioned in an earlier era under conditions that no longer exist, may not be able to respond to circumstances their designers did not foresee. The first step in assessing the current suitability of those institutions is to anticipate the emerging conditions under which they must function. But how, as one classical historian put it, are we "to divine the unseen future that lies hidden in the present?"

Broadly speaking, there are three methods of contemplating the future. One assumes that the future will mirror the past. A second envisages abrupt change and tries to hedge against it. A third attempts to discern the underlying causes of current trends, in order to anticipate how those causal forces will shape the future. Each has its merits and limitations. The problem, of course, is to understand which method is most appropriate to the particulars of time, place, and subject.

Had a study similar to our own been undertaken in 1956, anticipating the quarter century to come, the first method would have worked best. From 1956 until 1981, much of the world was divided, geo-strategically and ideologically, into two hostile camps. The United States, the Soviet Union, the United Kingdom, Germany, France, and Japan were the centers of economic and military-industrial power. Nuclear weapons prevailed in the strategic arsenals of the world's great military powers; their surface combatants and submarines continued to roam the seas, artillery and main battle tanks dominated land operations in warfare, and air power was ubiquitous. Despite many changes in the world, both the political alignments and military technology that dominated in 1956 still remained in 1981. The world grew accustomed, uneasily, to continuity.

Had a study begun in 1925, pointing to 1950, the second method, which envisages abrupt change, would have been best. As that era began, Germany and the Soviet Union were weak powers, and Asia and Africa were still largely controlled by the great and wealthy imperial powers of Europe. The United States had recoiled from world politics following the frustrations of the Great War and its aftermath. Battleships were the capital ships of the world's great navies, infantry doctrine defined armies, and the airplane was seen primarily as a tool to support land forces. By 1950, however, European economies were just emerging from ruin, their overseas colonial empires were dying, the Soviet Union and the United States had become rival superpowers, and America was committed by treaty to the defense of Western Europe. The military domain had absorbed at least two major revolutions: the full exploitation of the third dimension through air power, and the advent of nuclear weapons. Warfare for the United States had changed dramatically through unifying the operations of land, sea, and air forces, and would never be the same again.

Given the magnitude of change now clearly underway, our study primarily adopts the third way to contemplate the next 25 years. We have attempted to distinguish the determinants of current trends so as to anticipate their effect on the future. As before, the components of change will be technological, economic, political, and military.

No one, of course, can predict exactly how that next quarter century will unfold. Through available lenses, we can foresee some things with reasonable clarity—demographic patterns, for example. Other phenomena, however, are rather more opaque. Nonetheless, we have used every analytical tool we could find to discern and analyze the emerging world. Finally, we have tried to find a proper balance between confidence and humility, both being important in any effort of this kind. We trust we have achieved that balance, and that its result will prove to be a sturdy foundation and an illuminating guide for the next two phases of the Commission's effort.

Charles G. Boyd



Executive Director

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## Disclaimer

This document reflects the work of the National Security Study Group, a collection of national security scholars and practitioners whose task it has been to provide basic research and analytical support for the chartered task of the United States Commission on National Security/21<sup>st</sup> Century. From this document, the Commissioners have drawn fourteen major conclusions that they have published separately under the title, *New World Coming: American Security In The 21st Century, Major Themes and Implications*. Not every proposition or nuance in this analysis is endorsed by every Commissioner.

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## **Introduction**

The future, in essence, is this: The American “moment” in world politics, which combines bloodless victory in the final stage of the Cold War with the apparent global triumph of fundamental American ideals, will not last forever. Nothing wrought by man does. In the next 25 years, the United States will engage in an increasingly complex world to assure the benefits that we—and most of the world with us—derive from American leadership.

As powerful as the United States may well be over the next 25 years, the world will not be tidily managed, whether from Washington or from anywhere else. History has not ended, mankind’s cultural diversity endures, and both the will to power and the pull of passionate ideas remain as relevant as ever in political life both within and among nations.

A diffusion of power thus stands before us, but not necessarily one of the classical sort. A new balance of power may arise that would be intelligible even to the statesmen of the 18<sup>th</sup> and 19<sup>th</sup> centuries, but something more, and something different, will overlap and perhaps overwhelm it. The ever tighter harnessing of science to technological innovation, and of that innovation to global economic integration, is changing the rules of international engagement. It is even affecting the identity of its engaging parties. The sway of state power has always fluctuated within society, and states have often competed with other institutions for influence beyond their borders. But the challenges now being mounted to national authority and control—if not to the national idea itself—are both novel and mighty.

It is not a foregone conclusion that the role of the state will be permanently diminished, or

the system of sovereign states reformed or replaced on account of these challenges. But both the system and its member units are certain to change as a consequence, as they have always changed from having been tested. In the years ahead, borders of every sort—geographical, communal, and psychological—will be stressed, strained, and compelled to reconfiguration. As the elements and vulnerabilities of national power shift, they will often leave current institutional arrangements at loggerheads with reality. Already the traditional functions of law, police work, and military power have begun to blur before our eyes as new threats arise.

Notable among these new threats is the prospect of an attack on U.S. cities by independent or state-supported terrorists using weapons of mass destruction.<sup>1</sup> Traditional distinctions between national defense and domestic security will be challenged further as the new century unfolds, and both conventional policies and bureaucratic arrangements will be stretched to and beyond the breaking point unless those policies and arrangements are reformed.

The future is also one of rising stakes, for good and for ill. Humanity may find ways to compose its disagreements, succor its poor, heal its sick, and find new purpose in common global goals. But if it fails at these tasks, it stands to fail more spectacularly than ever. That is because greater global connectedness leads one way to benefit and another way to misfortune. Economic downturns that have usually been episodic and local may become, thanks to the integration of global financial markets, more systemic in their origins and hence more global in their effects. The greater wealth that may be expected to flow from global economic

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<sup>1</sup> See William S. Cohen, “Preparing for a Grave New World,” *Washington Post*, July 26, 1999, p. A19.



integration will nevertheless produce growing inequality within and among nations. The march of science and technology, too, will provide ever more powerful tools—tools that can be used for benefit in the right hands, but that may pose even genocidal dangers should they fall into the wrong ones. The next 25 years may well force mankind back to first principles over the ethical dilemmas inherent in biotechnology. Our concept of national security will expand. Our political values will be tested as our society changes. In every sphere, our moral imaginations will be exercised anew.

Some things, however, will not change. We will no doubt revisit many times the three oldest questions of political life: How is legitimate authority constituted? What is fair in social and economic life? How do we reconcile disagreements? Historical principles will still apply as we ponder these and other questions. There will still be great powers, and their mutual engagement will still matter. As ever, much will depend on the sagacity and good character of leadership. Misunderstandings, misjudgments, and mistakes will still occur, but so will acts of brave leadership borne on the insight of exceptional men and women.

The upshot of the changes ahead is that Americans are now, and increasingly will become, less secure than they believe themselves to be. The reason is that we may not easily recognize many of the threats in our future. They will differ significantly from the dangers to which history has accustomed us: ranting dictators spouting hatred, vast armies on the march, huge missiles at the ready. They may consist instead of unannounced attacks by sub-national groups using genetically engineered pathogens against American cities. They may consist of attacks against an increasingly integrated and vulnerable international economic infrastructure over which no single body exer-

cises control. They may consist, too, of an unraveling of the fabric of national identity itself, leading several important countries to fail or disintegrate, generating catalytic regional crises in their wake.

The main policy challenge in all such cases, diverse as they may be, is the same: How does an American national leadership bring the country together and marshal its resources to both seize new opportunities and deal with novel threats? But we are getting ahead of ourselves. Before moving to arguments and evidence, let us first briefly describe ways and means.

“No man can have in his mind a conception of the future, for it is not yet,” wrote Thomas Hobbes in *Leviathan*, “But of our own conceptions of the past we make a future.” Hobbes meant two things by this statement: most obviously, that the past is the only basis upon which to forecast the future; more subtly, that social life tends to freeze into itself the conceptions we have of it. Hobbes was twice right. Absent the gift of prophecy, history’s recurrent patterns, discontinuities, and intimations about human nature compose our only means of reckoning ahead. It remains true, as well, that the very act of probing the future tends to shape it, for we often act on our anticipations in ways that invite their arrival.

It is therefore no mean feat, and an act of no little consequence, to describe the international environment for U.S. national security 25 years hence. Let anyone who doubts the difficulty inherent in the task look back as far as this study looks ahead.<sup>2</sup>

In the late summer of 1974, just 25 years ago, the United States had just passed the deepest throes of a major constitutional and po-

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<sup>2</sup> See Study Addenda, part 1.

litical crisis. Its economy was more anemic than it had been at any time since the Great Depression and it had just lost a war, a process accompanied by deep social divisions and a massive loss of faith in the national purpose. America's most serious global adversary, the Soviet Union, was steadily augmenting its strategic military clout and pursuing territorial encroachment by proxy from Africa to Central America. Meanwhile, America's key allies in Europe and Asia were hedging their bets over American leadership and seemed set to overtake the United States economically. Faith in the future of democracy and the health of market economies declined both at home and abroad. Not many predicted then that just 25 years later, the United States would be standing at a pinnacle of national prosperity and international power, its institutions very much intact and its core political values vindicated on a global scale.

Clearly, the U.S. national trajectory in the world has pointed upward since 1974. Over the next 25 years, however, it could point other ways. Nevertheless, our point of departure in this study is an assumption that the United States, a primary political, military, economic, and cultural force in the world today, will remain such a force through 2025. Its size, wealth, power, cultural sway, and diplomatic reputation render it inevitable that the United States will retain a significant role, and be a significant factor, in shaping the international security environment.

We also make three key methodological assumptions: that the definition of national security must include all key political, social, cultural, technological, and economic variables that bear on state power and behavior; that future projections based solely on today's trends are liable to be misleading; and that while forecasting a range of futures is possible,

predicting a specific one is not. The reason for this last assumption is critical, and it is this: *the future is contingent*. Human history does not just happen; it is made. The state of global affairs in 2025 will be determined by an array of decisions, large and small, most of which have not yet been made. Our problem, therefore, is not how far we can see out on the road ahead with the best of analytical tools. The problem is that the road is not straight, and not even the highest power binoculars allow us to see around curves.

However difficult looking into the future may be, it is both necessary and irresistible. It is necessary because the stakes are so high that even an imperfect effort is better than none at all. It is irresistible because we are human beings: curious, emotionally engaged, beckoned to challenge. We have organized *New World Coming* in five parts. Part I, "Global Dynamics," sketches an overview of the range of major systemic changes we see arising over the next 25 years. These are organized, in turn, according to four basic categories: scientific-technological, economic, socio-political, and military-security. Part II, "A World Astir," looks at regional trends in light of global dynamics.

Part III, "The U.S. Domestic Future," examines what the United States itself will be like over the next quarter century. American resources and social cohesion will influence how much power the state will have at its disposal, and American domestic political culture will help shape how the United States exercises that power in the world at large.

Part IV, "Worlds in Prospect," translates the analyses of the three foregoing sections into four global scenarios. The purpose is not to predict which of these worlds will come into being, but rather to offer heuristic devices to help us encapsulate the forces that will drive

the world toward one of several alternative futures over the coming 25 years. The scenarios describe the interplay of developments in technology and economics with associated social, political, and military environments. These four scenarios are followed by a speculation that the first quarter of the 21<sup>st</sup> century will be a patchwork of these four worlds.

Part V, “Major Themes and Implications,” is a summation of the Commission’s findings.

## **I: Global Dynamics**

The future is an enigma wrapped in familiarities. If we were suddenly transported back 25 years to 1974, we would feel much at home, yet we still could not foresee the world of 1999. We could not predict the end of the Cold War, the information revolution, the sustained economic growth of the 1990s, or the specific collection of conflicts that have lately roiled international politics. So, too, even though we are liable to feel at home in 2025—if only because our arrival there will be so comfortingly gradual—many things will have changed that we cannot foretell.

Social change involves not a single but a twin puzzle. To the one side is the ceaseless buzz of natural and human activity that seemingly amounts to nothing of real significance. But to the other side, we suddenly awake to great transformation in domains where we have sensed no activity at all. Just as we do not feel the earth turning on its axis despite the considerable speeds and distances involved, we usually do not “see” social or political change as it occurs.

There are grand theories of social change that grapple with this twin puzzle, but we need only recognize that social reality has multiple and interactive sources. Some are proximate, such as those animated by personalities, intellectual fashions, and happenstance. Others are more remote, including those embedded in the physical environment, the biological constitution of the species, and the perdurable patterns of human culture. We proceed here by examining scientific-technological trends and prospective patterns in the global economy, then move to the socio-political dynamics affecting and affected by both, and conclude with a discussion of the international military-security domain.

### *The Scientific-Technological Future: “What Will People Learn and Build?”*

The tools that Americans and others have built in this century alone have wrought major social and political changes in technologically advanced countries, most of them unanticipated. Mass electrification transformed economies by revolutionizing both manufacturing techniques and consumption patterns. Extensive private ownership of automobiles led to vastly increased labor mobility, to new spatial patterns in residential life and, particularly in the United States, to the advent of the suburbs. Suburban life, in turn, accelerated the integration of diverse communities into a new mainstream, changed voting patterns and purchasing behavior, accelerated the separation of generational cohorts within extended families, and altered the social functions and economics of major cities. Antibiotics begot a demographic revolution and, with other advances in medical science, contributed to the transformation of religious sensibilities. Television brought a nascent commercial culture still at the margins of social consciousness in the mid-1940s into the core of social life. Birth control technologies have altered gender roles and family patterns.

The political impact of these developments is virtually incalculable. Skill-sets and civic values, even the foci of national identity, have all been altered. If the point that technology influences social and political life is not sufficiently clear at the national level, consider the epic struggles of the 19<sup>th</sup> and 20<sup>th</sup> centuries between various forms of socialism and liberal democracy. The basis for those struggles was the enormous social and psychological discontinuities unleashed by the Industrial Revolution, since it was that Revolution that turned the socialist idea into programmatic ideologies. New social and political discontinuities will surely

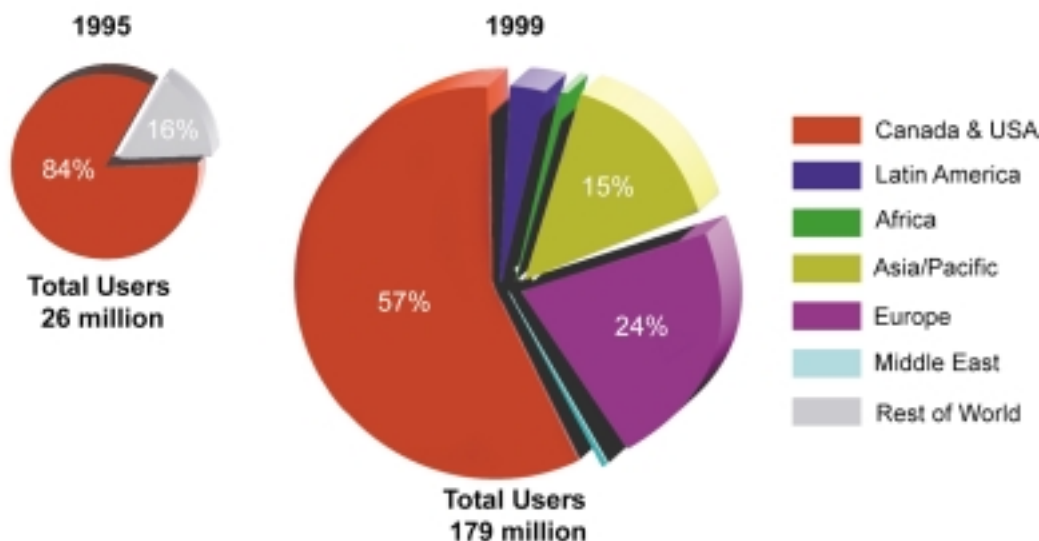
flow from the major scientific discoveries and technological innovations that await us in the next century. Indeed, so vast are their implications that we can only hint at them here.

**W**hat technologies will emerge over the next 25 years? The general characteristic that stands out with respect to new technology is a major shift in paradigms of scale. Until the 1970s, the reigning industrial-

tiny silicon wafers, and we are beginning to mimic the molecular assembly capabilities of biological systems.

The most striking innovations of the next quarter century will occur in three basic categories, and combinations thereof. These categories are information technology, biotechnology, and micro-electromechanics (MEMs).

### **Internet Users Are Increasing**



Source: NUA Internet Surveys/NUA Analysis.

technological paradigm was one in which factories grew larger to serve global markets; buildings grew taller, concrete spread wider, and continents were linked by ever larger jumbo jets. Gigantic rockets lifted men to the moon and, with multi-megaton warheads, underwrote the nuclear standoff. Efficiency and status lay in large scale. Now, however, miniaturization, adaptability, and speed are primary traits. Ever more capacity is being placed on

Great strides in information technology will continue, and the social impact will be great. Internet use is increasing dramatically around the globe and will continue to do so.

Computing power will grow and costs per unit of value will decline. Networks will be ubiquitous, software will be smarter, and computers will assume more “human” characteristics in terms of voice and visual

capacities. There will be near-universal access to information and many forms of expertise on a global scale by 2025, if not before. The entire world will be linked, so that from any stationary or mobile station it will be physically possible to send and receive near-instantaneous voice, video, and other serial electronic signals to any other station. If the millennium about to pass into history is remembered as the time when humanity first recognized its common planetary space, the first century of the coming millennium may be remembered as that in which humanity achieved the potential, if not the reality, of full connectedness in real time. We will witness, as it has been called, the death of distance.<sup>3</sup>

Information technology will make much of our environment interactive, both with respect to devices that respond to our wishes, and with respect to other people. By 2025, vast numbers of people—large majorities in advanced societies—will carry their own personal infospheres with them, perhaps wearing them in their clothing and powering them with the mere kinetic motion of walking.<sup>4</sup> Most people and vast amounts of information will be accessible at all times, in all places, in a world where a tailored virtual work environment will accompany us whenever we wish. When we travel, our cars will have GPS receivers networked to central databases, allowing for a constant update of map and traffic information. Upon arriving home, the environment will adjust to our presence thanks to linked, programmable appliances. Entertainment will take on a more cosmopolitan flavor since it will reflect global connectivity. We will be able to associate “virtually” with any person or group sharing our interests in hobbies, politics, ethnicity, or religion.

Even more dramatic than new innovations in information technology, major developments

await us in biotechnology. By 2010, biotechnology may overtake information technology in terms of economic investment; whether it does or not, it will almost certainly overtake it in terms of macro-social impact.<sup>5</sup> Both business and, to a lesser but not small extent, governments will sustain large research and development funding in biotechnology. This funding, along with parallel advances in genetic engineering and tissue-growth research, will spur rapid innovation and related economic growth.

Capabilities could be startling by today’s standards. If governments permit, genetic engineering will allow sex and specific trait selection in infants. Cloning human organs will be possible, and in some instances common. Many viral diseases will be better understood, and stem-cell technology could allow treatments for many degenerative neurological ailments. Treatments to enhance the human immune response against diseases will be possible. “Farmaceuticals” will be readily available, with cows, pigs, and sheep with altered genes providing proteins with medical value in their meat and milk. Agriculture will be transformed by higher productivity, nutrition- and vaccine-enhanced foods, and greater plant resistance to (known) pests. Taken together, these innovations suggest that the human life span in the developed world could shift from the present average of about 75 years to at least 85 years—and perhaps to as

<sup>3</sup> Coined by Frances Cairncross, *The Death of Distance: How the Communications Revolution Will Change Our Lives* (Boston: Harvard Business School Press, 1997).

<sup>4</sup> MIT’s Lincoln Lab is experimenting with a sneaker-borne battery powerful enough to drive integrated circuits. Merely walking produces sufficient energy. See T. Starner, “Human-powered Wearable Computing,” *IBM Systems Journal*, Vol. 35, Nos. 3&4, 1996.

<sup>5</sup> See *Forecast ’98: A Vision for Advanced Research and Technology* (Fort Meade, MD: National Security Agency, 1998), p. 29; and *The U.S. Biotechnology Industry*, Office of Technology Policy, 1997.



much as 120 years—within the next quarter century.

Between now and 2025, cheap, high-density microelectronics will proliferate in the tools and the physical environment of those living in technologically advanced societies. We will become familiar with MEMs: micro-electromechanical devices in which sensors, transmitters, receivers, or actuators (switches that activate mechanical devices) have been miniaturized to the size of a transistor. Such technologies will affect our lives in many ways. Should we become sick, our doctors will know as soon as, or even before, we do, for micro-sensors will constantly monitor our health. Smaller, more capable sensor devices will help insure the safety of both home and work. Energy bills will drop due to the use of low power devices. Airplane wings will feature microscopic sensors on their surfaces, allowing for faster travel at more efficient speeds. MEMs may also allow far more intrusive and cost-effective exploration of outer space, with unknown economic, political, and possibly moral implications.

Dramatic new capabilities in MEMs devices will appear as the long awaited nanotechnology revolution takes hold. In nanotechnology, devices are manufactured using molecular fabrication techniques not unlike those found in the human body. Many new technological advances will be based on bio-mimicry—the deliberate attempt to capitalize on what nature has learned through millions of years of evolution. To borrow from Eric Drexler, one of the founding fathers of nanotechnology, we will be engaging the “engines of creation” to alter the tools we use.<sup>6</sup>

Current developments indicate that nanotechnology, though in its early stages, will develop rapidly. In July a research team was

able for the first time to fashion simple computing components no thicker than a single molecule.<sup>7</sup> This is a breakthrough that, in retrospect, may come to rival in importance Enrico Fermi’s nuclear chain reaction in a squash court at the University of Chicago in 1942.

The implications of nanotechnology are particularly revolutionary given that such technologies will operate at the intersection of information technologies and biotechnologies. This merging and melding of technologies will produce smaller, more stable, and cheaper circuitry that can be embedded, and *functionally interconnected*, into practically anything—including organic life forms. The implications of such a fundamental innovation for advances in materials science, medicine, transportation, energy, manufacturing, and agriculture are simultaneously huge and still mostly unknown.<sup>8</sup>

What is clear is that such basic innovation will allow for more sophisticated scientific explorations of our environment. It will facilitate the gathering of information and advance our understanding of complex distributed systems. Such technologies may also merge with, and aid, major advances in theoretical physics, particularly in the areas of complexity and chaos theory. The results will not be just theoretical and intellectual, but will have dramatic implications for creating new technological synergies and for developing ever more sophisticated applications of our new tools.

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<sup>6</sup> Eric Drexler, *Engines of Creation* (New York: Anchor-Doubleday, 1987). Many of Dr. Drexler’s concepts await experimental verification.

<sup>7</sup> John Markoff, “Tiniest Circuits Hold Prospect of Explosive Computer Speeds,” *New York Times*, July 16, 1999, p. 1.

<sup>8</sup> There are several ongoing projects that estimate technological innovation. See, for example, William E. Halal, Michael D. Kull, and Ann Leffman, “Emerging Technologies: What’s Ahead for 2001-2030,” *The Futurist*, Nov.-Dec. 1997.

However dramatic such potential breakthroughs may be, they will not revolutionize everything within a 25-year period.

The belief in a revolutionary shift in world energy patterns will not die. Many scientists hold faith in nuclear fusion, or in a hydrogen-based energy economy. Some believe that energy may one day be mined from the vacuum of space—zero-point energy, so called. Still others believe that substituting ethanol for standard gasoline can make a major impact on energy balances, and that genetic engineering can radically increase the biomass available to make ethanol, thus radically reducing the price.<sup>9</sup>

The problem with these prognostications, save for the last one, is that they offer no viable solution for the inertia inherent in existing fossil fuel infrastructures. Even if a major innovation does come from the laboratory, it will take most of a 25-year period to create the supportive production, transportation, and marketing infrastructures necessary to make a major difference on a global scale. We should expect steady advances in the labs and important practical innovation, not so much in energy *sources* as in the *efficiency* with which new devices use energy. Major advances in batteries are a near certainty, and urban-use automobiles that run on fuel cells are likely, too. As the economies of many advanced countries become more knowledge-based, and as telecommuting, telemarketing, and e-commerce become more prevalent, energy consumption patterns may change for the better, as well.

But unless the ethanol solution transforms the global energy industry, fossil fuels and their locations will still matter economically and in the political calculus of major powers.

Indeed, demand for fossil fuels will grow as the economies of Asia and other parts of the developing world expand.<sup>10</sup> American dependence on foreign sources will also grow over most of the next quarter century. If prices remain moderate enough to depress the exploitation of marginal or difficult-to-extract fossil fuel reserves—as may well be the case over the next two and one-half decades—then the importance of Persian Gulf producers will actually *grow* back to levels reminiscent of the mid-1970s.

This is not the place to detail all the various innovations in science and technology that will shape our lives in the next 25 years, or to speculate about those that will not. In any event, what matters for the purposes of this study is less the devices themselves and more their social and political impact, and here the prospects are mixed. While new scientific discoveries and technological innovations hold out the promise of enormous benefits, they will also present many challenges, some of them cognitive and practical, others moral and philosophical.

One reason to expect new challenges is that change will come upon us faster than ever. The speed with which new technological innovations enter the commercial and thus the social mainstream will continue to increase, leaving society less time to adjust. It was with great and

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<sup>9</sup> See R. James Woolsey and Richard G. Lugar, "The New Petroleum," *Foreign Affairs*, Jan./Feb. 1999. The Clinton Administration endorsed major research in this area in August 1999.

<sup>10</sup> See Energy Information Administration, *Annual Energy Outlook 1999* (Washington, DC: Department of Energy, December 1998); Geoffrey Kemp, *Energy Superbowl: Strategic Politics and the Persian Gulf and Caspian Basin* (Washington, DC: Nixon Center for Peace and Freedom, 1997); and Anthony H. Cordesman, *The Changing Geopolitics of Energy* (Washington, DC: Center for Strategic and International Studies, August 12, 1998).



justified anticipation that Thomas Alva Edison threw the switch that electrified Pearl Street in lower Manhattan in 1882, but it took another thirty years before the commercial and social implications of electricity hit full stride in the United States. Nowadays, moving from the germ of a scientific breakthrough to the mainstreaming of new devices may take little more than a year.

There are good reasons for the picking up of this pace. First, basic science is increasingly wedded to technological innovation, and this new conjunction in turn is increasingly wedded more closely to industry than to government defense labs. One result is that considerably more research and development investment is flowing to basic science, in both universities and commercial labs, than ever before. This trend, almost certain to widen and accelerate, means that the propensity for breakthroughs has been virtually systematized.

Second and closely related, in much of the world, and particularly in the United States, markets allow for the rapid commercialization of new technologies, and populations have become used to ceaseless innovation. The result is a cultural propensity to accept and adapt to innovation, which in turn works as an accelerator to innovation itself.

Third, information technology accelerates innovation because it is simultaneously a product and marketing device. The first thing that television advertising stressed was the purchase of more televisions, so that the technology became self-replicating in market terms. The array of new commercial information technologies, from personal computers to Internet nodes to GPS devices to cell phones, trumps the self-replicating capacity of television by orders of magnitude. This technology is its own infrastructure and its own commer-

cial multiplier effect—and it will be used in the future to market other innovations, many of which will doubtless be linked with information technology and biotechnology.<sup>11</sup>

Fourth, the technologies of the future will be far more knowledge-based than physical resource-based, and the constraints imposed by extracting and processing bulk materials will shrink proportionately. What once required tons of steel and concrete to create a given increment of GDP growth now requires a tiny fraction of that weight in plastic and silicon. While the presumed “de-materialization” of the world can be exaggerated, knowledge-based innovation is freer to move ahead rapidly, constrained only by the availability of human capital and the organizational capacities of society to marshal and exploit that capital.

One of the inevitable consequences of an increased pace of innovation married to an interweaving of basic science fields is that our capacity to anticipate specific developments shrinks. In a way, we become smarter and dumber at the same time. We see this already in the way that the information revolution has played out in the last two decades; while very few wish to turn back the clock, there is no denying the disruptions in business and personal lives that many have experienced.

Information technologies have already had a significant impact on most individuals in the United States and other technologically advanced countries. We already have a rudi-

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<sup>11</sup> See Daniel A. Losk and Randall P. Nottingham, “Global Market Penetration of Communications Equipment: Computers, Telephones, and Televisions,” *Standard & Poor’s DRI World Economic Outlook*, First Quarter 1999, p. 39.

mentary personal infosphere: witness the number of people driving down the freeway using cell phones and staying in daily contact with relatives and business associates via e-mail. We know, too, that individuals in technologically advanced societies are in many respects more powerful than ever before. They know more, and, by extending their senses more effectively, are more efficacious than any generation before them. They are more long-lived than any previous generation, as well.

The domain of the personal infosphere will grow over the next 25 years, both vertically and horizontally. In other words, the sophistication of such spheres will rise, and the number and types of people who have them will proliferate over much of the world. As a result, the physical boundaries of our neighborhoods and business locations will become less relevant as individuals create virtual communities of common interests—"communities of choice" or "hobby tribes," some have called them—by electronic means. Through our computers we will visit any business site or read the latest in science and culture as we choose, or communicate with others who share our interests anywhere at virtually any time. The Internet will provide interactive rather than mainly passive information; it will become a tutor rather than just a reference resource in subjects of our own choosing. In that sense if not also others, as one observer put it, "time zones will become more important than borders."<sup>12</sup>

This prospective technological environment will pose certain problems. Individuals will have to cope with new levels of complexity. No one will fully understand the environment or be able to master the massive, continuous flow of information about it. One of the key social implications of the technologies in our future is that they will tend to

confound all attempts at centralized control, not unlike the logic of the marketplace. To succeed, as individuals and as organizations, will mean adapting to a life of continuous education and operational redesign. New information/knowledge tools will become our tutors and guides. Compared to the present, everything will be hurled into relative motion. Some people and some organizations will cope better than others in such circumstances, and those left behind will suffer economically. In short, new technologies will create new filters for sifting out winners and losers in society.

Adding to the press of complexity and information overload will be the pressure of short reaction times. The Internet already allows us to do things globally in near real time that used to take weeks or months. In the past we have always had time to prepare and react, and to weigh the potential consequences of our actions. In the future, we may process more information but, held in thrall by the grip of the technology itself, we may actually be prone to think less about it. Many will learn the hard way the differences between data, information, and knowledge. Hard as this challenge will be on individuals, it will be even harder on large organizations and especially on governments.

As a consequence, we may be headed for a considerably more stressful cognitive environment. While stress is a subjective notion to some extent, it does have an objective physiological basis, and potential health implications flow from it. Disease patterns could shift; we might learn to cure many forms of cancer only to be plagued by a host of cardiovascular and psychological maladies that rest today at the fringes of our health concerns. Stress may also lead some people to seek more predictability in

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<sup>12</sup> Walter B. Wriston, "The Third Technological Revolution," *Foreign Affairs*, Sept./Oct. 1997, p. 172.

their lives and to compensate for uncertainty in some realms by magnifying certainty in others.<sup>13</sup>

But it is not a foregone conclusion that a high-technology future will be more stressful for most people. More prosperous and healthier people with more recreational time on their hands may well be under far less stress. If, in addition, telecommuting saves countless hours of being stuck in traffic and allows more people to live in idyllic environs, then, rather ironically, more people would experience more of nature thanks, in essence, to high technology.

New technologies will also affect developmental and educational issues. As with any young animal, a human child's neural networks form as a function of the pace and nature of the stimuli the child encounters in the environment. Some neurophysiologists believe that a child who has spent hundreds of hours watching "action" television and playing fast-paced computer games before reaching age six may have a hard time sitting still in a standard classroom, where the pace of activity is far slower. This does not necessarily mean that there is anything inherently wrong with the technology or the games. But this technology does bear implications for better understanding controversies over the definition and treatment of hyperactivity, or attention deficit disorders, in pre-adolescent children, and for educational methods generally.<sup>14</sup> There is a good prospect that educational methods will be revolutionized for the better once we fully understand and learn how to apply the new technologies at our disposal.

Families as well as individuals will have to cope with new circumstances. The denizens of the most advanced countries will face new responsibilities as parents and citizens in managing and utilizing the information age. As the natural limits and disciplines imposed by physical and

social borders shift and sometimes dissolve, individuals will have to accept more responsibility for their own mental and moral balances. As one observer put it, a totally open and unfiltered network, operating amid the frenetic pace of contemporary life, means that "the most important thing parents need to understand about preparing their kids for the Internet world is that it requires not more whiz-bang high-tech skills, but rather more old-fashioned fundamentals" such as good parenting, a functional family life, and high quality basic education.<sup>15</sup>

**B**orders between generations and sexes will shift, too. As to the former, the faster the rate of technological innovation, the more likely that younger people will be at the forefront of it as "technological generations" grow ever shorter. This is despite the fact that so many people living longer and healthier lives may compose a "new middle-aged"—those between, say, 55 and 75—who may be far more active and productive as a group than ever before. The relatively greater economic utility and status of young people may have enormous social implications in many societies.

For much of human history, advanced age signified deeper knowledge in nearly every

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<sup>13</sup> Some believe that the growing popularity of gated communities owes something to this motive, particularly for those invested in the fast-paced, high-stress corporate world. See Robert D. Kaplan, *An Empire Wilderness: Travels into America's Future* (New York: Random House, 1998), pp. 33-5; and Edward J. Blakely and Mary Gail Snyder, *Fortress America: Gated Communities in the United States* (Washington, DC: Brookings, 1997).

<sup>14</sup> Empirical research relevant to this connection is detailed in Jane N. Healy, *Your Child's Growing Mind: A Guide to Learning and Brain Development from Birth to Adolescence* (New York: Doubleday, 1994). See also, "Understanding TV's Effects on the Developing Brain," AAP News, May 1998; and Committee on Communications, American Academy of Pediatrics, "Children, Adolescents, and Television (RE9538)," American Academy of Pediatrics, October 1995.

<sup>15</sup> Thomas Friedman, "Are You Ready?" *New York Times*, June 1, 1999, p. A23.

society. Old people used to be relatively rare, and it has always made a certain evidential sense that the more experience someone has the wiser they are liable to be. The nature of prospective technological processes turns this tradition on its head. With younger minds more flexible and absorptive, and hence more valuable to a continuously innovating society, the continued veneration of elders will make less evidential sense, particularly as population pyramids invert and there are more elderly than young. This may be especially problematic in Confucian societies, but it will have an impact on Western ones, as well.

As to gender differences, as we head into a knowledge-based economy driven by technologies characterized by smallness and speed, the relevance of males' greater size and physical strength will further diminish. Historically, the larger average size and strength of males determined the division of labor in families. As first animal and then machine calories were substituted for those of human muscle, the economic relevance of gender distinctions and divisions began to fade. The lag time between economic reality and culture has been considerable, but culture has been catching up. The next few generations of technology should close the gap further, and one implication is that women will move in greater numbers into positions of public authority.

There are honest differences as to what this implies, but most speculation on the point exceeds the grasp of current evidence.<sup>16</sup> It is clear, however, that women's issues are the main barometer of social change in many non-Western societies, and in some places the vanguard force in breaking down patterns of social stasis.<sup>17</sup> So while the impetus for sexual equality has been mainly a Western phenomenon in this century—and while technology has had a good deal to do with it—its main global

impact in the next century is likely to be in non-Western domains. The arrival and acculturation of new information technologies in such areas are likely to greatly reinforce this impact, as women have an equal chance as men to make themselves master over such tools.

Several divisive issues will arise on account of some new biotechnologies that will affect gender and other human traits. Many ethical problems reside in the growing technical ease with which parents may choose the sex, and other traits, of their children. Similar ethical—and practical—problems will also inhere in the use of increasingly precise means of altering mental states, including new psychopharmacological methods of inducing happiness, self-esteem, and other emotions, entirely divorced from any behaviors in the world.

Many problems will also be raised by the prospect of radically prolonged life spans. First and foremost is the question of access: Who will get to use such technologies, and who will not? How will scarce medical resources be apportioned if everyone claims a right to a radically lengthened life? Should finite resources be spent on prolonging life when those resources are needed for saving younger lives from the ravages of disease? How will advanced countries deal with social policy issues concerning retirement age and benefits, pension funds and medical insurance?

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<sup>16</sup> See Helen Fisher, *The First Sex: The Natural Talents of Women and How They Are Changing the World*, (New York: Random House, 1999); Francis Fukuyama, "Women and the Evolution of World Politics," *Foreign Affairs*, Sept./Oct. 1998; and the response to Fukuyama by Barbara Ehrenreich and Katha Pollitt in the Jan./Feb. 1999 issue.

<sup>17</sup> For one example, see Celia W. Dugger, "India's Poorest Are Becoming Its Loudest," *New York Times*, April 25, 1999, (Week in Review), p. 3.

Individuals, too, may confront totally novel issues, such as how to relate to their grandchildren's grandchildren.

All of this has an international dimension, as well. Those few Americans who have recently been able to choose the sex of their children have preferred females to males, but the cultural bias in most other parts of the world, particularly the Far East, is the opposite.<sup>18</sup> If choosing the sex of children becomes widespread, it could in time create sharply divergent population profiles in different societies. Moreover, the resentment toward advanced societies by those farther behind is likely to grow if, for example, people in the Near East or Latin America come to have average life spans several decades shorter than those in more technologically advanced societies. The lack of availability of advanced medical technologies could prove a stimulus for immigration from the developing world.

The boundaries of communities and workplaces will shift, too. As to the former, virtual communities may replace actual ones to some extent, the limit defined by the instinctual human proclivity to sociability and social order.<sup>19</sup> If virtual communities proliferate very widely at the expense of real ones, then our public space itself may contract. The Internet, and the merging of the Internet with commercial entertainment culture, will allow individuals to virtually select their own news. That may reinforce preexisting biases, and it may narrow people rather than broaden them, leading them to be less concerned about society-at-large rather than more.<sup>20</sup> If so, our public space may shrink, and democracy may be hollowed out from the inside, even as all of its outward forms still appear normal.

On the other hand, local communities could flourish in reaction to the proliferation of virtual communities. People who spend more time at home as they telecommute may take a greater interest in local concerns and local politics. That, in turn, could revivify communities and nurture higher levels of political participation at the grassroots.<sup>21</sup>

As to the latter, telecommuting will not make workplaces obsolete, for workplaces have an indissoluble human dimension and need such a dimension to function effectively. But it will change how workplaces function.<sup>22</sup> The fact that many people will be freer to live farther from a central workplace will also affect residential patterns, and could have significant implications for land and water use. Closely related, if, as many expect, e-commerce composes half or more of all commercial transactions before the year 2025, there are implications for the spatial and social compositions of city and suburb. The ratio of residential to commercial uses of real estate will rise as fewer stores are necessary to sell similar volumes of goods. Labor profiles will change, too: There will probably be fewer

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<sup>18</sup> Note the data in Nicholas Eberstadt, "Asia Tomorrow, Gray and Male," *The National Interest*, No. 53 (Fall 1998), pp. 63-5.

<sup>19</sup> See also Francis Fukuyama, *The Great Disruption: Human Nature and the Reconstitution of Social Order* (New York: Free Press, 1999), and David Whitman, "More Moral," *The New Republic*, 22 Feb. 1999, pp. 18-9.

<sup>20</sup> Andrew Shapiro, "The Internet," *Foreign Policy*, Summer 1999, p. 25.

<sup>21</sup> There are signs that this is already happening in the United States. See *Deconstructing Distrust: How Americans View Government* (Washington, DC: Pew Research Center, 1998), pp. 15-6.

<sup>22</sup> Hamish McRae, *The World in 2020: Power, Culture, and Prosperity* (Boston: Harvard Business School Press, 1994), p. 179.



retail clerk jobs in stores, but more delivery, sales, and inventory management jobs.

The new economy will transform entertainment culture as well as residential and business patterns. Here, too, there are implications for the spatial layout of communities. New places will allow for new social mixing and new ideas; new vocabularies will form and new cultural symbols will evolve. This matters because the spatial features of community—human geography, so to speak—have always had political implications.<sup>23</sup>

Telecommuting, telemarketing, and e-commerce are also parts of a wider reality that is introducing new patterns into work-and marketplaces alike. The ability to bypass traditional lines of communication has introduced new efficiencies in business—the much discussed “flat,” non-hierarchical organization. The wealth-producing potential of what amounts to a new way to use human capital is enormous, and we have probably seen only the beginning of it so far.<sup>24</sup> But new technological patterns have created a need for different organizational structures and processes to allow decision making authorities to function. It has not always been easy to devise them, nor will it get much easier in the future. Obviously, a completely flat organization is not an organization at all, but just an agglomeration. Moreover, what private business can do, public bureaucracies in democratic countries cannot do as easily, for the latter do not measure success in keeping the public trust by standard accounting methods. Nor can they, or should they, override the rules of accountability essential to democratic governance.

A related technology-driven issue that will have an impact on both individuals and society at large concerns privacy and secrecy.

Privacy will be more difficult to maintain. Ever expanding capabilities to monitor individual workers, to intercept messages or monitor conversations, and to obtain personal data from databases may conflict with individual rights in democratic countries. Secrets will be difficult to keep—whether individual, business, or governmental—but individuals and organizations will still try hard to keep them. We do not yet know who will win the race between encryption and decoding, but it is likely that more basic information will be available to those who wish others ill. There will be a pervasive tension between divulging information, so that one may benefit from the social networks of the future, and holding back information to foil the efforts of those who would abuse such networks.

As to the physical environment itself, the future is likely to bring a mixed picture. No one doubts that human activity has altered the biosphere. The expansion of human numbers and habitations has changed the face of the planet, although there is much debate over particulars and over the moral balance inherent in human activity. Pollution is bad for humans and other animals, but economic growth lifts people out of misery and the condition of a life nasty, brutish, and short. Moreover, the technology of environmental remediation is now keeping pace with the damage that industrialization causes in advanced countries, and it will be increasingly available in developing countries as well.

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<sup>23</sup> For historical examples, see Michael Vlahos, “Entering the Infosphere,” *Journal of International Affairs*, Spring 1998.

<sup>24</sup> For a brief review of the debate over the relationship between information technology and gains in productivity, see Steve Lohr, “Computer Age Gains Respect of Economists,” *New York Times*, April 14, 1999, pp. A1, C14.

Still, even with advances in remediation technology, limits to resources are real, including the availability of fresh water as populations grow. There is also a problem inherent in sharp reductions in biodiversity owing to anthropogenic activity.<sup>25</sup> These limits represent a major challenge to posterity. That said, there is fierce disagreement over several major environmental issues. Many are certain that global warming will produce major social traumas within 25 years, but the scientific evidence does not yet support such a conclusion. Nor is it clear that recent weather patterns result from anthropogenic activity as opposed to natural fluctuations.

There is no doubt that natural disasters will roil the future as they have always roiled the past. It is also clear that as population pressures and other factors drive large numbers of people in developing countries to build homes in river flood plains and coastal areas, the human toll from such disasters will rise.<sup>26</sup> Some 40 of the 50 fastest growing cities in the world are in earthquake zones. Already half the world's population lives in coastal zones prone to flooding and to the spread of malaria and other diseases. Environmental refugees now account for more than half of all refugees worldwide, and that percentage may grow.<sup>27</sup> There is doubt, however, about the severity of future trends, depending on how one reads the pace, depth, and source of climate change.

**S**ocio-economic borders will also be stressed by new technologies. The new requirements of an information-based economy may create novel social divisions with serious political implications. For example, international connectivity will allow job competition over an increasingly wide geographical area. The good news here is that efficiencies will rise, and greater efficiency in business translates overall into more wealth in society. But

there is a downside, too. British Telecom now uses operators located in New Zealand because they are wide awake when most people are snoozing in England; that brings lower costs and greater efficiency to the company but greater employment pressures in Manchester and Leeds. Such changes are likely to affect white-collar jobs as much or more than blue-collar ones that are physically bound to a particular place.

The polarization of work forces is also a potentially serious social issue. Those members of society who are not adept at symbol manipulation may have difficulty adjusting to the new techno-economic environment. It is not clear, for example, that there will be enough low-skill service jobs for those echelons of the population that require them for independent sustenance. If there are not, the sprawling and very liberally defined American middle class—and the middle classes of other formerly industrial societies, too—will split, with the upwardly mobile joining the international cyber-economy and the rest headed toward more marginal economic domains.

Moreover, whenever educational segmentation reflects racial or ethnic segmentation, the new geography of labor stratification may exacerbate existing social divisions. This could be a particularly volatile issue in those societies, including that of the United States, that have a

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<sup>25</sup> This activity includes the burning of rain forests for sedentary agriculture, the destruction of estuaries and mangroves, desertification, and the overuse of pesticides in conjunction with monocultural methods in agriculture.

<sup>26</sup> See Steve Lonergan, "The Roles of Environmental Degradation in Population Displacement," *Environmental Change and Security Project*, The Woodrow Wilson Center, Issue 4 (Spring 1998), pp. 5-15.

<sup>27</sup> International Federation of Red Cross and Red Crescent Societies, *World Disaster Report 1999* (New York: IFRC, 1999).

relatively benign history of social mobility. New technologies may also affect social patterns related to socio-economic stratification. Already in advanced countries the advent of automated service devices such as automated tellers at banks and voice mail in offices has reduced the number of face-to-face encounters between people of different socio-economic echelons. The social and political implications of increased isolation among socio-economic groups is unclear, but it is not something to be taken lightly in mass democracies.

Clearly, then, technological drivers will affect social patterns and raise questions of social justice. Such questions will doubtless become major items on the political agendas of advanced societies. This is already so to some extent. Over the last several decades there has been a greater skewing of income distribution in the United States, as well as in many other advanced societies. Some blame regressive tax policies for this, but more likely we have witnessed a technology-driven asset expansion among the wealthy not different in essence from the basic economic dynamic of the Gilded Age. As before, this asset-driven expansion of wealth is likely in time to generate a wage-driven expansion, and there is some indication that it already has done so. The democratization of capital that seems to be inherent in the new technological environment could also lead to a greater leveling of income and status amid a greater prosperity for all. But we do not yet know how new technologies, and their effects on domestic and international economic arrangements, will remix opportunity and economic achievement in various societies. Most likely, there will be more polarization in some domains and less in others.

A concern with social justice is not the only macro-social area liable to be put to new tests by technological dynamics. Changes ahead will

threaten all vested interests whose power resides in the familiarities of the status quo. For those who have achieved high incomes and status, the prospect of rapid change can be threatening, and those who have “made it” very often have the power to arrest or even derail change—at least for a while. One manifestation of such fears is the way in which technological innovation is often depicted by tenured elites. National politicians extol the promise of the Internet, for example, and then turn their attention to ways of limiting it through regulation, censorship, and taxation.

Depending on the wider cultural milieu, some tenured elites do better at resisting change than others. All of this suggests that the culture wars of advanced societies will shift over time as new technologies work their way down and into social patterns. We may stop arguing so much over abortion, gun control, and the coarseness of entertainment culture, and more over evisceration of public space, the ethics of selling synthetic life-forms for profit, and government regulation of cyberspace. But argue we shall and, as we do, new content will fill the vessels of our political vocabulary, changing what it means to be liberal or conservative, progressive or reactionary.

New knowledge-based technologies could also divide societies in terms of basic values. Some unknown percentage of adults in advanced societies may opt out of a life characterized, in their view, by a frenetic pace of cognitive demand, a lack of privacy, the dissolution of comforting boundaries, and the misapplications of human priorities. Some citizens will be actively hostile to the new cyberworld, perhaps violently so.

This suggests that the adversary cultures of advanced societies will form new ideologies on the basis of opposition to the sort of technology-driven social changes outlined above. One sees such signs already at the fringes of the environ-



mental movements in many technologically advanced countries. This is a trend likely to grow in intensity, and it has potential security implications in the form of eco-terrorism, a taste of which we have already experienced both in North America and in Europe.

While some will rue the new machines, and while environmental concerns will doubtless take many forms, others will relish the personal empowerment that the new technology will provide to those ready and able to embrace it. But this, too, poses a potential social challenge, and one with profound implications for democratic political cultures. The growing sense of power that will accrue to many individuals, not to speak of societies and states, as their senses are extended by technology could corrupt moral balances and erode moral discipline. If that were to happen on an extensive basis, it could undermine the very sources of the cultural system that has facilitated such individual empowerment in the first place.<sup>28</sup> It could threaten the balance of healthy civic habits that have long sustained democratic communities.

International borders will become more porous, too. States will find it increasingly difficult to prevent the flow of ideas, economic goods, and dangers into their territories.<sup>29</sup> At the interstate level, technology portends a sharp leveling effect in the ability to do harm to others across territorial borders. It will no longer require a major investment in scientific and industrial infrastructure for small states and even reasonably well-heeled groups and individuals, whether they be criminal syndicates or terrorists, to get their hands on very dangerous technologies.

As important, while all societies will be exposed to technology and its effects, not all societies will master them equally. While the implements of new innovations will be more

widely diffused, the benefits may be more unevenly distributed than ever. Some countries, and groups within countries, will embrace technological innovation, while many others will go through life in a technological environment that is pre-1940s by Western standards. Thus, new technologies will divide the world as well as draw it together.

This is extremely important for the long run. All major technological-economic revolutions have tended to empower some groups and diminish others. As we move ever deeper into a time of knowledge-based power, those nations, societies, and groups that excel at education and human capital generally will find themselves with daunting relative advantages over those that do not. This is already obvious in some respects through the postwar examples of Hong Kong, Singapore, and Israel, small and natural resource-poor places that have nevertheless been able to generate considerable wealth and relative power. This is why education, as well as social capital and cohesion, will be increasingly important components of national power in the future.

In this regard, the Internet may play a powerful role. On the one hand, the Internet has considerable potential to spur greater literacy in much of world, and to bring knowledge to millions who might otherwise not have the opportunity to learn. That is all to the good. But a global Internet culture may also produce far more half-educated people. The proverb that a little knowledge can be a dangerous thing may be trite, but that does not make it false. When one recalls that some of the most dangerous leaders, and followers, in the 20<sup>th</sup> century have been half-educated men—Stalin, Hitler, Mao,

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<sup>28</sup> Daniel Bell, *The Cultural Contradictions of Capitalism* (New York: Basic Books, 1976).

<sup>29</sup> See *Human Development Report 1999*, United Nations Development Program, pp. 29-30

and Pol Pot come readily to mind—the possibility begins to take on a worrisome dimension.

This is a potential problem not just at the level of national leadership, but at a level far deeper in society. The Internet is already full of information, but not necessarily of knowledge—and it is utterly unfiltered. For those who lack a solid basic educational grounding, it is difficult to distinguish accurate from false information, serious ideas from half-baked ones, practical proposals from those both dangerous and fanciful. After all, any person, even a child, can use the Internet to visit with “hate” groups, or be unwittingly influenced by many sundry forms of unhealthy or just unusual propaganda from any of the four corners of the earth. It is as easy to get the Aryan Nation website up on a computer as it is to load Amazon.com. “Big ideas” hatched anywhere on earth may rush around the world far more quickly than ever before—both good and not so good “big ideas.” The potential for the growth of an international “know-nothing” populism cannot be ruled out just because the web will also facilitate coordination among groups lobbying for peace and human rights.

Nor can it be assumed that essentially anti-modern forces will abjure using the Internet. In some Muslim societies, religious fundamentalists are often the first to seize upon modern techniques of communication to spread their messages. The quasi-religious martial arts societies of China, though mystical and anti-modern at heart, may do so as well if their leaders argue that they need to use technology in order to “humanize” technology.

New technologies may also affect the bonding strength of national identities. Through the Internet, Americans and other citizens of technically sophisticated societies will have far greater exposure to peoples of other nations, and greater levels of interaction with them.<sup>30</sup> Tourism may become the world’s

largest industry by 2025, as interest in other climes and the ease of getting to them both increase, and the costs of doing so decline. Technology may also allow a near-universal language translation capability, resulting in the potential for a far wider exchange of ideas. In many countries, this will likely create a greater sense of something like a global citizen, and it may change dramatically how people identify themselves and how they see their country’s place in the world. Americans, and other traditionally patriotic nationals, could come to develop strong associations both above the level of existing national identification—that of the “world citizen”—and below it, with ethnic, sectarian, or otherwise local community symbols. In other words, we may witness the birth of the post-modern state, a phenomenon with potentially huge implications for international politics.<sup>31</sup>

This is a crucial uncertainty because major changes in the global political order have occurred historically only under two conditions: when the nature of legitimate political units changes (for example, from empires to nation-states in the 19<sup>th</sup> and 20<sup>th</sup> centuries), and when new values generate the redefinition of personal identifications and loyalties. It is hard to say how much eroded the idea of the unitary national state may be over the next quarter century, but the splaying of political associations both upward and downward from the level of the state is already in evidence in Europe. Skeptics doubt the possibility of building an economy in order to build a state, and a state in order to build a nation—which is the logic of a

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<sup>30</sup> See the special issue on the impact of the Internet in the *Indiana Journal of Global Studies*, Spring 1998.

<sup>31</sup> See James Kurth, “The Post-Modern State,” *The National Interest*, No. 28 (Summer 1992); and John Lewis Gaddis, “Living in Candlestick Park,” *The Atlantic Monthly*, April 1999, pp. 65-74.

federated Europe from the European elite point of view. But what would never have worked in the old world may work in the new; already many Germans, Dutch, and Portuguese younger than age 30 think of themselves as European as much as they do German, Dutch, and Portuguese.<sup>32</sup> And if it does work, it will do so largely because, thanks in part to new technologies, the sinews of intersocial communications will break down existing cultural as well as economic borders in favor of new ones.<sup>33</sup>

Oddly enough, too, but still quite logical, existing national units are more likely to break down in circumstances where an overarching transnational edifice is in place, or is seen to be coming into being. Thus will forms of integration and fragmentation coexist. The slogan of the Scottish National Party (SNP), for example, in this past spring's first election for a modern Scottish parliament, was "Scotland independent in Europe." The SNP did not win the day, but in the future it might; and roughly similar logic applies to places such as Corsica, Lombardy, Wallonia, Catalonia, and the Basque country.

We may also face, as a species, new ethical and philosophical challenges to human civilization itself thanks to the prospects of biotechnology. While biotechnology harbors tremendous potential for good, the potential for permanent damage to humanity and the biosphere is also a reality. This technology, for example, will allow for the creation of ever deadlier and harder to detect weapons of potentially genocidal dimensions. The linkage between biotechnology and nanotechnology methods poses dilemmas even more profound. For example, it will soon be possible to connect human brain cells to silicon chips.<sup>34</sup> It will also be possible to alter more precisely

human behavior through genetic engineering.<sup>35</sup>

While such abilities hold out promising techniques for healing many mental and physical illnesses, and for a very advanced form of robotics, it also suggests that the very constituency of humanity may change—not just from altering the human genome through genetic engineering, but also from mixing it with non-organic mechanics. When philosophers have spoken of the co-evolution of man and machine, until now they have spoken metaphysically. Notions of “androids,” “cyborgs,” and “bionic” men and women have dwelled exclusively in the realm of science fiction. But at least the beginnings of such capabilities could literally exist within the lifetime of today's elementary school children.

The implications of such developments should not be underestimated. Our understanding of all human social arrangements is based, ultimately, on an understanding of human nature. If that nature becomes subject to significant alteration through human artifice, then all such arrangements are thrown into doubt.<sup>36</sup> It almost goes without saying, too, that to delve into such matters raises the deepest of ethical issues: Can humanity trust itself with

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<sup>32</sup> But still not most, according to the European Commission's *Eurobarometer 50*, cited in Dominique Moisi, “Dreaming of Europe,” *Foreign Policy*, Summer 1999, p. 49.

<sup>33</sup> See John Newhouse, “Europe's Rising Regionalism,” *Foreign Affairs*, Jan./Feb. 1997.

<sup>34</sup> Scientists have already grown brain cells from a rat on a silicon chip, the result exhibiting certain characteristics of each. A photograph may be found in *Business Week's* special Summer 1999 issue on innovation, p. 106.

<sup>35</sup> This has already been achieved with mice. See “Social Behavior Transformed With One New Gene,” *Science Daily*, August 19, 1999, p. 1.

<sup>36</sup> Argued by Frances Fukuyama, “Second Thoughts: The Last Man in a Bottle,” *The National Interest*, No. 56 (Summer 1999).

such capabilities? Should it? How can it know before the fact? Who gets to decide?

There have always been technological pessimists among us, yet despite the disruptions of several iterations of major technological innovation over the past few centuries, the lives of the vast majority are longer, healthier, happier, and more secure as a consequence.<sup>37</sup> Most likely, the new discoveries and devices of the next quarter century will also tend to enhance life in quality and quantity. Still, there is growing unease that we are upping the ante to the point that a single mistake or a single act of sheer evil could leave a potentially fatal wound. So it may be that mankind will come face to face with technological choices that make us think twice before we plunge ahead. If so, then we will have reached a new and higher stage of civilization in which man as a tool-making animal and man as a moral being will devise an explicit reconciliation between these two core facets of his nature.

### *Global Economics: “How Is Wealth Created?”*

In its essence, economics comes down to a simple question: How is wealth created, distributed, and used? But the answer to that question is anything but simple. We have moved far beyond undifferentiated subsistence means for making ends meet. Local, regional, national, and international economic dynamics have become extraordinarily complex, involving matters of matching resources, sophisticated production techniques, education and human capital, marketing, finance, trade, and the corpus of custom and law that binds all of these activities together.

As far as the next 25 years are concerned, most important in any consideration of U.S.

national security is the extent to which the global economic system will continue its path toward integration. That is because such integration will affect the distribution of economic, political, and, ultimately, military power in the world. Some countries will prosper more than others, and some alert developing countries, such as China, may prosper most of all.

Continued integration promises greater wealth for most countries, including the United States, but it also promises a host of novel vulnerabilities. If integration stalls or is reversed, however, other problems will come to the fore. Beyond the broad distribution of wealth and power, political destabilization could arise from the tendency of knowledge-based economies to exacerbate divisions within and among states. Economic interdependence will create vulnerabilities for the U.S. economy. Capital markets and trade may well be exploited by others for purposes at odds with U.S. interests. New economic patterns may also affect national identities and the capacities of states to govern.

Most observers believe that the international economic system is in a state of rapid transition, but they often disagree about where this transition is leading. That is partly because outside the domains of professional economists—and sometimes within them—*prescriptive* disagreements shape most discussions of globalization. Nevertheless, a reasonably objective picture of the new global economy can be drawn. It requires first a grasp of structural changes in the international economy having to do with its financial and production dimensions, and how world economic cycles are being influenced as a

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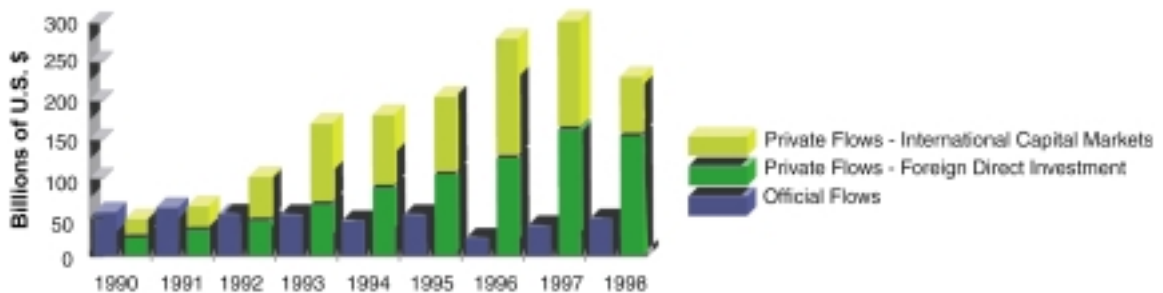
<sup>37</sup> The optimist-pessimist debate goes on. See Virginia Postrel’s *The Future and Its Enemies* (New York: Free Press, 1998), which describes the contest as it takes the optimists’ side.

result. It means understanding the connection between trade and capital flows, especially in the developing world. And it means understanding the various barriers to economic change.

A key to the changing global economic environment is the explosion in the volume of international capital flows. The basic data tell the tale. In 1990, the first full year of the post-Berlin Wall epoch, developing countries

commercial banks still play a major role in global capital flows, and in their volatility. But the sources of investment have expanded to include pension and insurance funds as well as individual portfolios.<sup>39</sup> In sum, the global financial system has grown from a small core set of players to a much larger and more disparate set of investors and creditors. This has created new vested interests across a wide range of economic, financial, and political domains

### Capital Flows to Developing Countries



Source: The World Bank, *Global Development Finance*, 1999, p. 14.  
Note: Data for 1998 is preliminary.

absorbed a little over \$100 billion in total long-term capital flows. More than half of these reflected official aid and assistance from governments or multilateral institutions such as the World Bank. By 1998, the contrast was stark. Total long-term capital flows to the developing world increased to \$275 billion. Of that amount, private capital flows both from international markets and foreign direct investment accounted for over 80 percent.<sup>38</sup>

Perhaps as important as the increased capital flows are the changes in the nature of the private parties participating in the market, and how they are doing so. There have been dramatic increases in the numbers and types of participants in the market, the size of discrete transactions, the types of instruments and funds involved, and the overall speed at which trading takes place. Large

worldwide who are wagering increasingly larger sums for investment and short-term speculation.

Technology has been an important enabler in this development. Advances in information technology have made it possible for financial

<sup>38</sup> According to the World Bank, international capital markets consist of bonds, loans, and portfolio equity flows. Foreign direct investment consists of the sum of equity capital, reinvestment of earnings, other long-term capital, and short-term capital, as shown in the balance of payments. Official flows consist of the sum of net flows of long-term debt from official creditors such as multilateral institutions and governments.

<sup>39</sup> According to the Organisation for Economic Co-operation and Development (OECD), pension fund assets invested in capital markets increased from \$4.9 billion to \$8.2 billion between 1990 and 1995. OECD, *The World in 2020: Towards a New Global Age* (Paris: OECD, 1997), p. 52.



institutions and individual investors alike to collect, analyze, and act on information about markets with unprecedented speed. This trend will grow because, as the technologies spread, others around the world will be able to participate in global markets just as ever more individual and corporate investors in developed countries like the United States do today.

Technology has had an even more profound effect on production itself. Technological advances have changed the way companies are being run in terms of operation, size, and location. On the one hand, it is now possible—and will become increasingly so—for many businesses to be truly global. On the other hand, information technology facilitates the shaping of specific production to specific markets. This phenomenon, known as niche production, will expand in coming years as the diffusion of knowledge about production techniques, and of smart machines themselves, merges with a far more specific and near-instantaneous knowledge of the market. This is true for old product areas, such as textiles, and for new product domains that technology itself helps bring into being. In different ways, the globalizing of business organization, the expansion of international markets, and the advent of niche production will force the restructuring of industrial and service sectors alike. It will also tend to improve standards and quality, and to put a premium on achieving speed, efficiency, and knowledge-based processes at every level and for every kind of business activity.

Information technology has also influenced inventory strategies, and these too have national security implications. Inventories are expensive to carry, and businesses prefer to maintain lighter loads in that regard. The problem is that disruptions in supply for whatever reason—not least war—leave dependent countries vulnerable. For example, should China attempt to seize

Taiwan by force, and in the process cut the economic links between Taiwan and the United States, American industry might well find itself short of important economic components.

Then there is the Internet, which is revolutionizing traditional methods of marketing and distribution. The Internet already provides a novel source of commercial advertisement—less for particular products than for classes of products—and its influence in that domain will grow exponentially over the next quarter century.<sup>40</sup> It also lowers the cost of entry to new markets, facilitating the expansion of smaller enterprises into international business. The Internet is allowing markets to become truly global, with fewer middlemen taking profit and slowing transaction times. Not only is the international market becoming larger, it is also becoming less hierarchical, and that has significant implications for the structure of commerce and competition across both the service and industrial sectors of the global economy.

The integration of the world economy now afoot is different from earlier episodes of economic integration. First, the ratio of trade to global GDP, at least according to some measures, is at historically high levels.<sup>41</sup> States today benefit more from economic interaction with other states than at any other time in the modern age, and they are also more dependent on those interactions to maintain

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<sup>40</sup> See Matthew Symonds, “The Net Imperative,” and “When Companies Connect,” *The Economist*, June 26-July 2, 1999.

<sup>41</sup> Trade as a percentage of world GDP approached 15 percent in 1992. Trade as a percentage of GDP in the pre-World War I era was just over 9 percent. But see Benjamin J. Cohen, “Phoenix Risen: The Resurrection of Global Finance,” *World Politics*, January 1996, and Mark Hallenberg, “Tax Competition in Wilhelmine Germany and Its Implications for the European Union,” *World Politics*, April 1996.

levels of growth and consumption. An ever larger number of countries, including the United States, increasingly relies on imports for consumer goods, export assembly, and technology inputs. In addition, the prosperity of domestic companies, financial institutions, and individuals is increasingly tied to the success of overseas operations.

Second, trade is less dominated by the exchange of commodities and manufacturing, having spread to include the export of services. It also now encompasses a far wider range of the world's countries. This spreading of international commerce has been particularly profound in the developing countries, the traditional suppliers of commodities to more industrialized states, which have emerged as important sources for a range of manufactured goods.<sup>42</sup>

Third, the cross-border reach of multinational corporations and other business production networks has accelerated. Large corporations can create truly global production networks, seeking out the lowest production costs worldwide for major components as well as whole products. U.S.-based corporations are increasingly shifting their operations overseas, depending more on global markets for revenues and production. More important, perhaps, multinational corporations are increasingly becoming transnational corporations, the difference being in the extent to which ownership and the flow of revenues internal to the corporation tend to coalesce at one hub as opposed to many hubs around the world.

Fourth, stock markets have been created throughout the world, and many of them have already become important engines of savings and investment. The most significant long-term implication of these new equity markets lies in their capacity to allocate investment re-

sources according to market-based criteria. In many countries this is an important new phenomenon, serving to advance other economic and also political reforms.

Fifth, international and multilateral institutions hold a prominence in today's economy unparalleled in the global economic systems of the past. These institutions are responsible for resolving trade disputes and designing national financial policies, among other functions, and these functions will expand as the global economy becomes increasingly integrated.

Sixth, expectations themselves are important. Large numbers of people in most countries are well aware of the economic benefits of a more integrated world. They have reason to pressure their governments to remove impediments, such as barriers to the inflow of capital, that stand between them and the presumed benefits of global economic integration.

Additionally, an increasingly integrated global economy is speeding the spread of international best practices. When economies are linked closely to world financial markets, governments cannot so easily maintain protectionist policies, and they must increasingly respect the discipline of the market. This is a good thing not just for bankers and financiers, but also for ordinary people, who have suffered far more from bad government than from the herding instincts of international investors.

Taken together, these changes suggest an important political implication. That so many people might be spared the miseries of poverty, and even become downright wealthy, opens up the possibility of more pluralist

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<sup>42</sup> For details, see OECD, *The World in 2020*, p. 37.

politics and less violence over more of the globe. The wealthier a country is and the deeper its integration into the global economy, the stronger its incentives to avoid major conflicts with its neighbors. Of course, economic logic does not necessarily coincide with political interests, and states have often done economically irrational things for political purposes. But such incentives do matter.

**I**t would seem, then, that the prospect of an increasingly integrated global economy lies before us. The integrative process, however, is not so simple. There are several reasons to doubt that global economic integration will proceed rapidly or smoothly. It may not even proceed at all, and it may even retreat in some areas. Let us visit the possibilities.

Resistance to change can be strong, and resistance to rapid change stronger still. Global integration, to the extent that any society engages in it, necessarily increases its exposure to market forces through the reduction of trade and investment barriers and the deregulation of the domestic economy. While the market tends over time to reallocate resources from less to more productive endeavors, it also disrupts local communities and traditional patterns of commerce. It requires wrenching structural shifts within a country's industrial base and employment profile.<sup>43</sup> Alterations in the patterns of wealth production, and consumption invariably destabilize the location of social status and both political and moral authority.<sup>44</sup> Since those who have status and authority are generally reluctant to part with it, some resistance to change is inevitable.

Resistance to the spread of global economic integration can take many forms. One historic form is protectionism. Whereas

the benefits of international trade are general, the costs are frequently distributed more narrowly among a country's less competitive industrial sectors. As an industry feels the brunt of international competition, political pressure is often generated to shelter it. In the developed world, perceptions that competition with the lower-wage developing economies will threaten traditional but relatively uncompetitive industries, and thus cause downward pressure on wages, are likely to engender protectionist sentiment over the long term.

Support for protectionism has also been developing in the United States, which is not surprising since free trade and globalization are the main reasons for the decline of high-paying manufacturing jobs. Protectionist sentiment has manifested itself in proposals to raise tariffs on imported steel and in opposition to extending presidential fast-track authority in negotiating trade agreements. All this is occurring at a time of record employment, high growth rates, and ebullient economic optimism. That poses a troubling question; as former Labor Secretary Robert Reich put it: "If free trade inspires this much antipathy now, when the economy is surging,

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<sup>43</sup> Some of these shifts are the function of oscillating exchange rates, which make products either cheaper or more dear without any reference to the objective productivity base of the industry. See Dani Rodrik, "Has Globalization Gone Too Far?" *California Management Review*, Spring 1997, pp. 29-53.

<sup>44</sup> Mexico is lately a stellar example, from the banishing of U.S.-educated technocrats from the upper echelons of party politics to the largest student strike in 40 years. See Sam Dillon, "Mexico's Presidential Hopefuls Are All New Breed," *New York Times*, June 24, 1999; and Julia Preston, "Student Strike in Capital Jarring All of Mexico," *New York Times*, June 25, 1999.



what will happen when the economy slows, as it inevitably will?"<sup>45</sup>

Elements of protectionism can come in multilateral as well as bilateral form. Regional ties are expanding and serving as a basis for economic growth, particularly through groupings such as Mercosur, the European Union, and NAFTA. So far, too, these groupings have tended to reduce trade barriers not only within their borders but also, with the exception of agricultural products, to the world at large. Nevertheless, should these blocs turn into de facto regional cartels when times get rough, world growth would be threatened instead of boosted. Competing regional trading blocs could mute, not encourage, the integration of new markets and resources in the global economy as a whole.

We can already see examples of protectionist proclivities within regional trading blocs. Tensions between the EU and the former Soviet satellites in eastern and central Europe owe much to this problem. EU agricultural goods are subsidized and thus bribed into export to places like Poland and the Czech Republic, putting great pressure on Polish and Czech farmers. Meanwhile, many east European goods are effectively kept out of EU markets by tariffs and quotas that specifically target those east European products that are competitive within EU markets. Obviously, in such a case trade is limited as a whole by what amounts to a regional cartel.

Culture, too, can be a source of resistance to economic integration. Resistance to change is liable to be more vigorous to the extent that the cultural carrier of that change is thought to be alien and dangerous. The implements of modern technology are overwhelmingly Western, and many equate

the emerging information society with American culture. In some societies, and particularly among younger generations, this culture is widely embraced. In other societies, however, this pop global culture is much resented, and it often divides generations in a way that irritates and worries national elites. Such resentment is discernable not only amid obviously reactionary forces—say, the Taliban—but is also widely present in Europe and in other countries that Americans presume to be their allies and friends.

Like it or not, we are entering an era of global culture conflict, the contours of which will be shaped by the pattern of how different cultures assimilate new technologies and avail themselves of emerging global economic patterns. Experience and common sense teach that it is frequently more difficult to acquire the attitudes—the social software, so to speak—that underlay a successful open economy than it is to acquire the capital and the desire to build one. Just as hopes were dashed 35 years ago that “technology transfer” would generate widespread spontaneous indigenous economic growth in the Third World, so today it takes more than a technical process for major social innovation to set roots and succeed.<sup>46</sup> Culture matters. As with the diffusion of technology, parts of the world are as likely to be pulled apart as brought closer together in the process of global economic integration.

Those peoples who do not benefit from a more integrated global economy are unlikely

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<sup>45</sup> See Robert B. Reich, “Trading Insecurities,” *Financial Times*, May 20, 1999.

<sup>46</sup> Note Thomas Sowell, *Migrations and Cultures: A World View* (New York: Basic Books, 1996); and Lawrence E. Harrison, “The Cultural Roots of Poverty,” *Wall Street Journal*, July 13, 1999.

to blame their own lack of social capital; they are more likely to sense conspiracy and feel resentment. That, in turn, prompts the question: Can a world half-integrated through Western techniques and technologies and a world half-alienated by them stand together in an era of dissolving borders? If the issue comes to be not just one of “haves” and “have nots,” but “wants” and “want nots,” can the latter successfully spoil the brew for the former?

A deterioration of the security situation in a given country or region would also radically affect the economic prospects of that area—possibly of the whole world if the region is large or important enough. It almost goes without saying that war obstructs commerce, destroys human capital and infrastructure, and diverts investment from productive to destructive sectors; capital withdraws to safer zones, undermining development and employment, thereby creating the conditions for still more instability and violence. Zones of the world that, for whatever reason, fail to stem the tide of violence, will fall ever farther behind in the 21<sup>st</sup> century. The result will be even greater discrepancies between rich and poor, not just among regions and countries, but also within them. Bouts of warfare between major powers would threaten the entire global economic system.

A major disruption in global energy markets could also have a profound impact on economic growth and integration worldwide. Developing economies will have a large appetite for energy as they seek to join the new global economy. Asia’s energy consumption will likely increase over 250 percent between 1996 and 2020.<sup>47</sup> The availability of abundant cheap oil from the Persian Gulf has been the major contributor to the sustained low prices of the past decade. If this supply is somehow threatened or

limited, then growth in developing countries could be stymied. Many regimes in the developing world might not survive the economic shocks resulting from an unstable oil market.

Still other discontinuities could affect economic integration. One, possibly an offshoot of biotechnology gone awry, could be major unexpected epidemics; another could be the further massive spread of AIDS to countries such as India or China. Should the world face the threat of pandemics, all bets would be off with respect to projecting economic growth rates. Human capital, population distributions, and the economic interconnectedness of the planet itself could all shift dramatically.

Clearly, then, further global economic integration is not a certainty. Nor can we assume the absence of a major systemic crisis over the next 25 years. Another major “boom-bust” cycle in the developing world, such as was experienced in 1997-98, could undermine political support for the market-based policies upon which the emerging global economy is based. But of all the dangers to the new economic arrangements we see aborning, the most critical, at least for the near term, concerns the health of the U.S. economy.

For the next five to ten years, the continued strong performance of the U.S. economy will be crucial to avoiding a systemic crisis. In the aftermath of the financial crisis of 1997-98, the United States is the only major economy continuing to experience robust economic growth. A sharp downturn in the U.S. economy, were it to occur before the demand for goods and services picked up sig-

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<sup>47</sup> *International Energy Outlook 1999* (Washington, DC: Energy Information Administration, 1999), p. 141.

nificantly in Europe and Asia, would lead to a world recession.<sup>48</sup> That would radically alter current rosy projections of U.S. and global prosperity.

How likely is a severe downturn? Few serious economists believe that the United States can maintain its current brisk rate of economic growth, with little or no inflation, over a 25-year period. There will be downturns. The crucial question is how severe they will be, and that in turn raises the question of what might cause them.

Some experts believe that the current vulnerability of the U.S. economy relates to the overvaluation of the U.S. stock market and unsustainable levels of consumer spending. Others disagree, believing that real gains in productivity, thanks to the cumulative impact of the information revolution, presage a surge of real growth such that the market may be undervalued. Others see vulnerabilities in the trade deficit on the one hand and the capacity of the United States over time to attract sufficient overseas investment to finance its national debt. If, for example, real economic reform in Japan led to greater Japanese consumer spending, that would reduce the amount of capital the United States could borrow. Conjoined to the further development of a euro bond market, the United States might have to raise interest rates to attract capital.<sup>49</sup> That could have a serious recessionary impact that might also affect world growth rates.

But a “hard landing” is not inevitable. The U.S. current account deficit is only about 2 percent of GNP, not an extreme number, and lower than was the case during much of the 1980s. Moreover, the current period of high deficits has also been a period of high investment. But if there is a “hard landing”—in which a depreciated U.S. dollar results in a compression of U.S. imports, lower foreign financing of the U.S. deficit, and higher domestic interest rates—its

impact on the rest of the world could be considerable.

There is a related issue. The global economy as a whole is dependent on the willingness of the private capital markets to continue their primary role in circulating savings from capital rich countries to capital poor ones. As it happens, the majority of the funds in those capital markets is now either American money or foreign money managed by American firms—although that could change fairly quickly. Thus, what happens in the U.S. economy will have an effect on the willingness and the capacity of private capital markets to function. Economic conditions in the world’s major economies, and particularly the U.S. economy, will still matter most in determining the size and nature of private capital flows.<sup>50</sup>

Some further volatility in capital markets is likely—how much, no one knows. But if there were an extended retrenchment of capital from developing countries, prospects for economic growth in many individual countries and the global economy as a whole would be reduced.<sup>51</sup> Without sustained economic growth, the prospects for political stability would dim in many places. While growth cannot solve all problems, it works well enough as a political pal-

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<sup>48</sup> Japan’s economy has already picked up. See Stephanie Strom, “Japan Grows 1.9%, to Economists’ Disbelief,” *New York Times*, June 11, 1999, p. C1.

<sup>49</sup> See C. Fred Bergsten, “America and Europe: Clash of Titans?” *Foreign Affairs*, March/April 1999.

<sup>50</sup> Foreign direct investment is the exception to this. FDI flows to developing countries dropped less than 5 percent between the crisis years of 1997 and 1998. *Global Development Finance*, p. 14.

<sup>51</sup> Capital flows to the developing world have been unevenly distributed. Therefore, since most of the flows have been concentrated in only a few large developing markets, it is misleading to lump all developing countries together insofar as the significance of global capital flows is concerned.

liative much of the time. And of course, the problem is circular: the more social and political instability, the poorer the economic prospects, and the poorer the economic prospects, the more political and social instability—at least once people have gotten a taste of what they are missing.

**B**ut what is most likely to happen? Continuing global economic integration, a slowing or stalling out of the recent pace of change, or even retrogression?

Barring a major disruption of the global economic or political system, the major trends in global finance, manufacturing, transportation, telecommunications, and trade described above will not be reversed anytime soon. The cross-border web of global networks will deepen and widen as strategic alliances and affiliates increase their share of production and profits.<sup>52</sup> The internationalization of production networks will also continue. But the speed at which other parts of the globe join the integrative process, and the inclusiveness with which countries are transformed as a result, is likely to be uneven, and in many cases much slower than anticipated.

What will this imply for the global economic system of the next century? Savings in the developed world will continue to finance growth in at least some of the developing world—unless major countries suck up too much of the world's investment capital. The judgments of markets and key market institutions, such as the major debt rating services, will remain critical in determining the size and sustainability of capital flows to all economies, not just to large developing ones such as Russia, Mexico, and Brazil. As important, the ability of developing economies to gain access to these funds will play a major role not only in how they fare, but also in how advanced ones fare, because their fortunes are increasingly linked.

Further global economic integration also means that there will be global economic growth, a remark that sounds rather banal but, on historical reflection, is not. Annual economic growth in several non-OECD economies (Brazil, China, and India) could average between roughly 5 and 7 percent. Today's OECD countries will average annual growth between 2 and 3 percent. Thus, the non-OECD share of world GDP is likely to rise from 44 percent to between 56 and 67 percent, depending on whether growth rates tend toward the higher or lower end of growth predictions. Thanks to its very large population, projected moderate to high growth rates, and a particular method of making economic comparisons, some have made the surprising assertion that China's economy could overtake that of the United States as the world's largest in absolute terms by 2020.<sup>53</sup>

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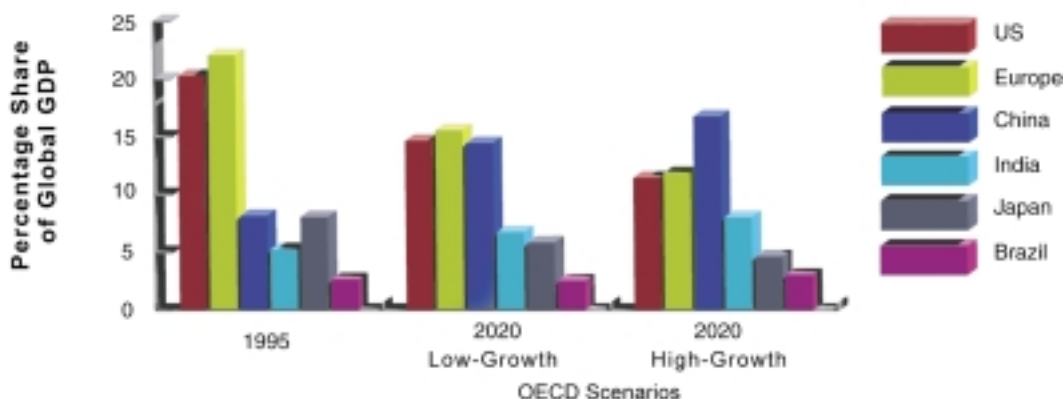
<sup>52</sup> For example, the National Association of Securities Dealers announced in June that it would team up with the Softbank Corporation to develop an electronic version of its electronic Nasdaq Stock Market in Japan to trade both U.S. and Japanese stocks. This will create literally a 24-hour market, and it is only the first of many likely joint enterprises of this sort. See Edward Wyatt, "Market Place," *New York Times*, June 16, 1999, p. C11.

<sup>53</sup> In order to make this projection, the OECD uses a metric for comparing countries' economies called the Purchasing Power Parity (PPP) standard. PPP is used now for GDP output comparisons by the CIA, the Department of Commerce, the World Bank, and the IMF as well as by the OECD. While this method avoids the distortions of using exchange rates to compare economies, it introduces distortions of its own. For details, see Murray Weidenbaum, "China's New Economic Scenario: The Future of Sino-American Relations," *Orbis*, Spring 1999, pp. 223-4. More conventional measures suggest that China would have to grow at an average of 12.4 percent per year for 25 years to equal the size of the U.S. economy—obviously an impossibility. Finally, it almost goes without saying that OECD and other professional institutional estimates of economic growth have often proven fallible in the past.

These general trends are hugely important. For at least the last century, global economic power and influence have resided in the large countries of western Europe, North America, and Japan. The global economic system in 2025, however, will be multipolar. In *both* low growth and high growth scenarios, China, India, and Brazil could become significant economic centers and attractive export markets for OECD and non-OECD countries alike.<sup>54</sup> This will rep-

increasingly complex and still volatile global economic system. The volatility of today's capital markets, well illustrated by recent crises in Asia, Russia, and Brazil, has led to widespread demands for a "new financial architecture." Such an architecture must mesh policymakers' demands for stability with market requirements for flexibility, and coming up with an acceptable formula has been tricky.<sup>55</sup> We are therefore likely to witness a continuing

### An Emerging Multipolar Economic World



Source: OECD, *The World in 2020*, p. 92.

resent a major realignment in the patterns of global economic influence and power. Increased tension is possible in consequence as these states try to assert their newfound influence in various arenas. They are bound to want to influence the rule-making processes in international economic regimes, processes that are dominated today by the United States and its allies.

Coincident with these likely trends in the economic future will be ongoing debates at the regional and international levels concerning the integration and regulation of this

<sup>54</sup> For the purposes of the graphic, Europe is defined as the 15 countries of the EU plus Iceland, Norway, and Sweden. The high and low growth scenarios differ primarily with respect to whether trade barriers and export taxes/subsidies decline to 50 percent or to zero, whether fiscal consolidation and labor market reforms take place, and what increases occur in energy efficiency, oil prices, and population growth. See OECD, *The World in 2020*, p. 63.

<sup>55</sup> A major new study from the Council on Foreign Relations takes a stab at the problem. See *Safeguarding Prosperity in a Global Financial System: The Future International Financial Architecture*, Report of an Independent Task Force (New York: Council on Foreign Relations, September 1999).



debate over how to keep international capital flowing, while, at the same time, reducing the volatility of those flows.

One school of thought likens infant international economic institutions to immature national ones. According to this argument, we should expect several sharp fluctuations in international business cycles before the much more difficult task of coordinating policy among many countries moves far forward. After all, the IMF was created at a time when most experts worried more about managing trade flows than capital flows and currency fluctuations.<sup>56</sup> But others oppose the notion of regulating international capital flows from above.<sup>57</sup> The more unfettered a market, the more liable it is to produce both extraordinary successes *and* extraordinary excesses. The way to tilt reality in the former direction, many argue, is not solely through regulation, but by forcing actors to learn best practices, and by exposing them to the penalties of occasionally getting it wrong.

This argument will not soon run its course. Future international financial crises are therefore inevitable; but of what magnitude and duration we do not know. As for their location, the developing world is the most likely epicenter, for that is where banking systems and internal regulatory regimes governing capital flows are most fragile. Since the pain of disruptions can be severe, the temptation to restrict capital movements will continue to exist. We have seen such a temptation at work in Malaysia's application of capital controls in 1998. Nevertheless, given the importance of attracting capital for economic development, attempts to limit the freedom of financial markets are unlikely to be applied to anything but short-term capital flows.

The volatility of capital markets has important security implications. First of all, the growing magnitude and nature of capital flows suggests a potential for ever bigger global waves in the movement of capital—bigger at their crests and also bigger at their troughs.<sup>58</sup> It is as though regional business cycles that were not harmonious in the past may become so in the future. If so, such waves can be large enough to capsize entire governments and destabilize entire regions. Second, and even more important, the nature of future regulations on capital volatility, and how they evolve, will set the tone for how states interact and for how technology and wealth are used. In other words, the process could shape the results such that getting there—to a new international economic architecture—could be nearly tantamount to being there—in a stable security environment.

A different approach to ameliorating the negative effects of huge and sudden flows in capital focuses on currency blocs. Some experts believe that by 2025 the world will be dominated by dollar and euro currency zones, and that such zones may be an effective way to allow smaller economies to enjoy the benefits of increasing global capital mobility

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<sup>56</sup> Such efforts may go hand in hand with debt reduction for the developing world, for the size of that debt not only harms those who owe, but ultimately also those who are owed. See Bob Davis, "G-7 Moves to Revamp Financial Systems," *Wall Street Journal*, June 21, 1999, p. A23.

<sup>57</sup> Some even propose abolishing the IMF, whose task has metastasized since the end of the era of fixed exchange rates. This includes former Secretary of State and Treasury George Shultz. See his testimony before the Joint Economic Committee of the U.S. Congress, May 5, 1998.

<sup>58</sup> This is not an entirely new development. The movement of "hot money" in the 1930s raised similar problems. See Harry Gelber, *Sovereignty Through Interdependence* (London: Kluwer Law International, 1997), especially chapter 2.



while avoiding some of its hazards.<sup>59</sup> Through the course of the Mexican Peso crisis of 1995 and the 1997-98 financial crisis, fixed exchange rates became increasingly associated with damaging exchange-rate volatility. While even large economies are not immune from such volatility, the small size of many developing economies' financial markets—often no bigger than a regional bank in the United States—makes it harder for them to avoid damage in a world of ever increasing capital flows. Some developing countries may seek exchange-rate stability by creating currency boards that fix the exchange rate to a given currency or basket of currencies. More radically, however, they can join with other countries to create a new currency (such as the euro), or they can adopt the currency of another country, as Panama has done with the U.S. dollar.<sup>60</sup>

The widespread implementation of any of these options would likely signify the de facto return to a largely fixed exchange rate system.<sup>61</sup> But there are problems. Should Argentina formally adopt the U.S. dollar, for example, as has been widely discussed in recent months, it would make the U.S. Federal Reserve the ultimate arbiter of Argentine monetary policy and reduce significantly the sovereign power of the Argentine state.<sup>62</sup> The Federal Reserve bristles at the former now, and the Argentine government would no doubt bristle at the latter in the fullness of time.

The debate over currency blocs has only just begun, and it will probably not end for many years. That is because, at base, international monetary policy involves a relationship among three factors—capital mobility, the existence of independent monetary policies, and an inclination to fixed or at least stable exchange rates—that seems impervious to permanent set-

tlement. While it is too soon to say how the currency bloc debate will turn out, it is not too soon to conclude that it will be a major arena of policy discussion and experimentation over the next quarter century.

What will be the implications for U.S. national security of global economic shifts? As noted above, these can be summed up by reference to four basic phenomena: greater disparities; increased interdependence; the exploitation of both trade and private capital markets for parochial purposes; and challenges to the identity of nations and hence to the capacities of states to rule them.

The harnessing of ideas, knowledge, and global resources has the capacity to increase world economic output tremendously, but with it will also come greater disparities in wealth and income. Such disparities will appear among countries, with significant implications for relative national power.<sup>63</sup>

Knowledge-based economies will also continue to create internal divergences in which the wealthy, well-educated, and well-placed will tend to get richer while the poor will tend to stay poor or get poorer. Middle classes, such as they are, will tend to split.<sup>64</sup> This trend is discernable already in those countries in the vanguard of knowledge-based economies. For

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<sup>59</sup> See Zanny Minton Beddoes, "From the EMU to AMU? The Case for Regional Currencies," *Foreign Affairs*, July/August 1999, pp. 8-13.

<sup>60</sup> "Global Financial Survey," *The Economist*, January 30, 1999, p. S15.

<sup>61</sup> Ibid.

<sup>62</sup> Argentina has already made the Federal Reserve the de facto arbiter of Argentine monetary policy.

<sup>63</sup> The key conclusion of the *United Nations Human Development Report*, 1999.

<sup>64</sup> See Peter F. Drucker, "The Age of Social Transformation," *Atlantic Monthly*, November 1994.

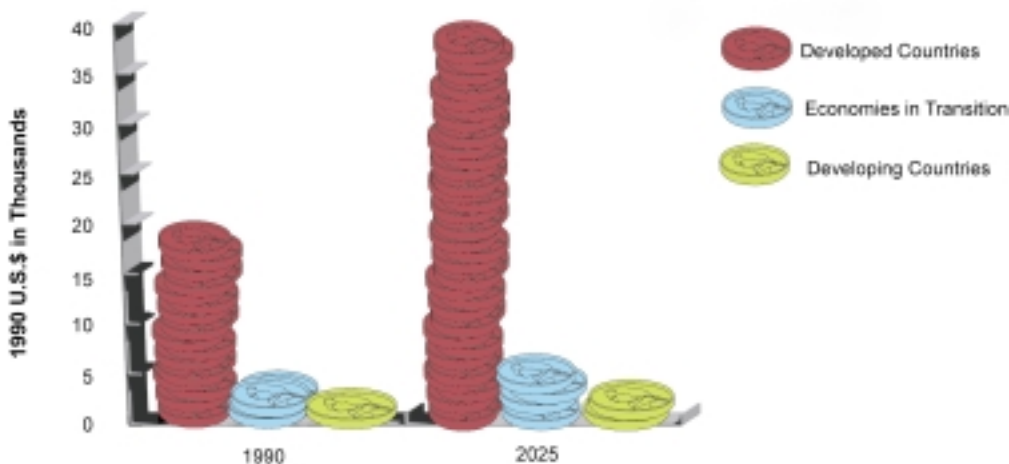
roughly twenty years, nearly 60 percent of the U.S. population has experienced falling real wages.<sup>65</sup> It is also in keeping with recent trends in economic history, where disparities in per capita income within developed countries outpaced those in both economies in transition and in developing countries.<sup>66</sup>

Internationally, the pockets of poverty amid wealth will also be more closely inter-

Economic disparities will be more visible to more people, which could be a new source of frustration and social tension.

Second, interdependence will characterize relatively open economies, including the United States. Those U.S. companies, investors, and consumers that depend on overseas production, imports, and revenues will be implicated by all those events overseas

### Per-Capita Income Disparities



Source: United Nations - Critical Trends: Global Change and Sustainable Development, 1997, p. 65.

laced than is the case today. Some regions of the world are still almost entirely devoid of the accoutrements of the information revolution; the huge and densely populated area within a circle drawn at a radius of 1,600 miles around Kabul is a good example. That will almost certainly change over the next 25 years. Once the world is fully “wired” together, skilled labor will be far more mobile, both literally and in terms of who people can choose to work for from computer stations in their home regions.

<sup>65</sup> For a brief discussion of recent trends, see Laura D’Andrea Tyson, “Wages and Panic Buttons,” *New York Times*, August 3, 1999.

<sup>66</sup> As defined by the United Nations, developed countries include Canada, the United States, the EU, Iceland, Israel, Malta, Norway, Switzerland, Australia, New Zealand, and Japan. Economies in transition include Russia, Southeastern Europe, the Baltics, the Czech Republic, Hungary, Poland, and the CIS. Developing countries include all other countries in Africa, Latin America and the Caribbean, and Asia, including China.

that affect major companies, affiliates, and suppliers. The key point is that a globalized economy renders all participating states more vulnerable to exogenous shocks and disruptions, whatever their sources. The channels of transmission for such shocks are simply growing faster than our understanding of them.

Very much related, as multinational corporations become increasingly international in character, the link between the corporation and its country of origin will be rendered more ambiguous. National governments, including that of the United States, will be increasingly subject to competing interests with constituencies that represent cross-border interests and alliances. Such competing interests could involve sensitive technology: transnational companies will seek minimal restriction in sourcing, selling, and licensing technology worldwide, but the U.S. and other governments will maintain an interest in controlling and regulating dual-use technology for military-security reasons. An already difficult problem may get worse.

Even more portentous, as global and domestic infrastructures become indispensable to modern life, their disruption can have literally life-threatening consequences. Such infrastructures, including crucial transportation, health, sanitation, and financial systems, are bound to become targets of the disgruntled, the envious, and the evil—individuals, groups, and potentially hostile countries alike. They will be very difficult targets to defend. Cyberwar, the attempt to shut down sophisticated systems with sophisticated means, is a serious threat, well worth worrying about.<sup>67</sup> Complex systems can also be disabled by primitive explosives detonated at the “right” time and place. And if we turn to genetic engineering to enhance yields from cereal and

other crops, we make those crops uniformly vulnerable to *deliberate* attempts to ruin them—as well as to the lucky insect, fungal, or bacterial pest.<sup>68</sup>

A third national security problem concerns the potential exploitation of the new scale and nature of private capital markets. The transformation of international financial markets allows governments as well as companies to raise money in different ways and from different sources than was the case when governments and commercial banks supplied the lion's share of such financing. Since the end of the Cold War, important states have taken advantage of this new environment. Russia, for example, has raised considerable sums through private capital markets, transfers that have been facilitated by U.S. policy and international lending institutions such as the International Monetary Fund. It is unclear whether the money has helped advance fundamental reform in Russia; some believe that it may have hindered reform by rendering it less urgent. Worse, since money is fungible, it is possible that funds raised from bond offerings in the United States can be used in ways that violate the spirit of U.S. laws.

Even if such activities are not technically illegal, they can be politically sensitive. Clearly, we are entering an era in which major

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<sup>67</sup> The White House, “Protecting America’s Critical Infrastructures: PDD 63,” May 22, 1998; Critical Infrastructure Assurance Office, *White Paper on Critical Infrastructure Protection*, May 1998; and the Marsh Commission Report itself, called the President’s Commission on Critical Infrastructure Protection, *Critical Foundations: Protecting America’s Infrastructures* (Washington, DC: GPO, October 1997).

<sup>68</sup> For an edifying fright, see Paul Rogers, Simon Whitby, and Malcolm Dando, “Biological Warfare against Crops,” *Scientific American*, June 1999, pp. 70-5.

“private” financial transactions have major political implications.<sup>69</sup> China has issued some 134 bonds in global markets since 1980, totaling some \$26 billion. Of this \$26 billion, \$10.5 was dollar-denominated, and of these nearly 60 percent was offered by just three entities, all of which may be implicated either in espionage directed against the United States or in military activities inimical to U.S. national security interests.<sup>70</sup>

The Russian and Chinese governments have made extensive use of the private market mainly because that is where most of the money is. They have done so, as well, because borrowing from such sources is often less expensive overall, for there are no underlying trade transactions or projects involved to be financed. This, in turn, makes it easier to divert funds for non-productive or even nefarious purposes. Until fairly recently, the use of private capital markets also made it easier to avoid conditionality, transparency, investment discipline, or the provision of collateral compared to using government-to-government funds or large commercial banks. Moreover, it is easier to recruit new sources of funding, such as insurance companies, pension funds, and securities firms.

The use of private financial markets also enables the cultivation of powerful political constituencies in both recipient and investor countries. Many experts have argued that the “bailout” packages put together for Mexico, Korea, and Russia have encouraged creditors, investors, and some private sector borrowers to think that if they stumble, the governments of the affected states, along with assorted multilateral institutions, will also bail them out with public funds and politically motivated loan forgiveness packages.

The use of private capital markets in the United States for purposes at variance with U.S. economic or security interests will continue. What is less clear is how to deal with such problems without placing new restrictions on capital flows.

Finally, global economic integration may bear important implications for the nature of states and the state system itself. Here, too, there is disagreement as to what those implications might be.

Some believe that the internationalization of economic life will affect the very foundation of political identity. Commercial organizations are becoming global, it is argued, and so are the science and technology bases of those operations and their associated labor markets. If people’s livelihoods become increasingly international in source, it follows that their sense of emotional attachment to the state will wane. This will be particularly the case where there is no obvious physical or ideological threat at the state level over an extended period. The implications for civil-military relations, broadly construed, can hardly be overstated: unless they feel themselves directly at risk, citizens will not risk

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<sup>69</sup> More accurately, perhaps, *re-entering* such an era, for the same phenomenon was common before the present century. The manner in which Benjamin Disraeli obtained the Suez Canal for Great Britain from the penurious Khedive Ismail is a picturesque case in point, but only one of many.

<sup>70</sup> Figures are taken from “The National Security Dimensions of the Global Capital Markets,” remarks of Roger W. Robinson before the Alaskan World Affairs Council, May 7, 1999; and “Can We Prevent U.S. Credit Flows From Fueling Russian Proliferation,” remarks of Roger W. Robinson before the Non-Proliferation Policy Education Center, May 19, 1999

their lives for a state with which they feel little or no emotional bond.<sup>71</sup>

While emotional bonds to the state may erode, demands made upon the state may increase in an era of great economic and social dislocation. This will put many states in a serious bind, with simultaneously less legitimacy from which to draw and less power to influence increasingly salient global economic issues. This condition, it is averred, will come to define the very crucible of national security policies in most advanced countries: greater social demands and expectations with respect to major economic stresses, combined with less state influence over the issues at hand. Many states, it is suggested, will not be able to survive such conditions, at least not as they are presently constituted.

How convincing is this view? Parts of it certainly make sense. It is true, for example, that most states' control over economic power and policy has been reduced from that of the Cold War era. Six reasons come to mind.<sup>72</sup>

First, while governments still matter in economic policy, the private sector now dominates more than ever the sources of economic growth, employment, and technological innovation. As governments rely more on private financing and market perceptions, their ability to manage fiscal policy without imposing penalties on the cost and availability of capital decreases. Second, the adoption of international standards that augur for liberalized and improved regulatory regimes translates into less capacity for states to manipulate national economic policy. Third, the pressures of economic and political decentralization could push many national governments toward the further empowerment of local governments. Fourth, increased economic dependence on

others makes it harder for governments to plan, predict, and control their financial futures.

Fifth, interest groups operating across borders, often in broad coalitions, can influence the strategies of private sector entities as well as the policies of governments. Already such private activities—those of the Soros Foundation, Amnesty International, Doctors Without Frontiers, Alert International, and many others—dwarf the organizational and financial capacities of many of the states in which they operate. Such activity could grow sharply if government regulatory regimes cannot keep pace with business activities, as may well be the case in many countries. Cross-border uses of mass action to police business activities may grow in rough proportion to the decline in governmental capabilities. The potential exists for millions of individual decisions to shape the future without the mediation of existing political institutions.<sup>73</sup> Sixth, most governments will experience continued pressures to reduce budgets, improve the transparency of decision-making, and develop policies that leverage private sector resources. All else equal, this will make it harder for governments to assist directly in income redistribution and provide social safety nets to vulnerable segments of their populations.

But will this mean that most states—and even great powers—will necessarily be constrained from implementing policies that materially interfere with this growing web of economic interdependence? No, it will not. Pressures against state authority and control

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<sup>71</sup> See Peter F. Drucker, "The Global Economy and the Nation-State," *Foreign Affairs*, Sept./Oct. 1997, pp. 159-71.

<sup>72</sup> See Saskia Sassen, *Losing Control? Sovereignty in an Age of Globalization* (New York: Columbia University Press, 1996).

<sup>73</sup> Noted in Jean-Marie Guéhenno, "The Impact of Globalization on Strategy," *Survival*, Winter 1998/99.



may be taken for granted, but states will fight hard to retain their role as the ultimate arbitrator of sovereign economic policies. They have done so many times in the past, and usually successfully. This suggests that the struggle for new forms of national maintenance and control will become the key to renewed state power.

The evidence thus far in our own era suggests that at least some states have a good chance to manage the process of economic change effectively.<sup>74</sup> One reason is that societies need them to succeed. The state is, after all, an expression of political community, with all its historical and emotional associations, as well as a vehicle of economic functionality. Those states that rule over coherent nations enjoy a store of symbolic capital against which they can draw. It is thus misleading to read into a reduction of state prerogatives over economic issues a reduced role of the state overall, or to assume that the core principle of state sovereignty is necessarily put at risk by increasing global economic integration. What does seem unarguable, however, is that if economic issues become more important, those states that manage to master the processes of change will see their relative international power increase over those that do not. National power is not the same as state power, the latter being that share of the former that governments learn to collect, manage, and deploy. The formula for translating national power into state power is changing, but it is not beyond mastery.

In a way, too, the state's role in shaping its domestic environment to achieve market based economic growth is even *more* vital in an increasingly integrated global economy than it has been in the past. The state will be responsible for maintaining appropriate fiscal and monetary policies, establishing coherent and market based regulatory regimes, maintaining social policies that ensure the effective educa-

tion of its population, and developing an adequate physical infrastructure. Increasingly caught between local social forces, international business interests, and perceived national interests, states will retain their legitimacy by delivering on their citizens' expectations for security and economic prosperity. As important, those dislocated by new global market forces will inevitably turn to the state for help, and the state, if it expresses a true national community, will want to respond. All of this suggests that the role of the state may be different in future, but not necessarily smaller, from what it is today.

It also suggests that a greater polarization of state power will probably result from the uneven capacities of states to manage and control economic change. Regional power balances may shift and some states might be tempted to push their new advantages. Others may elect to use force preemptively against those seen to be rising above the pack. Thus, while some vectors suggest that global economic integration will bring the world closer together, others suggest that it will be driven farther apart.

Much is at stake in the argument over how the state will react to global economic integration, and much needs sorting out. It is usually assumed in the West that democracy and free-market economics are mutually supportive. But the state is the only secure locus of democracy as we know it. So what does it mean to say that the future will beget a world in which states are increasingly beholden to other authorities—that of the

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<sup>74</sup> See Linda Weiss, *The Myth of the Powerless State* (Ithaca, NY: Cornell University Press, 1998). Weiss analyzes in detail several case studies, including South Korea, Taiwan, Japan, Sweden, and Germany, and concludes that states can learn to reimpose effective governance over economic policy.



market, that of transnational organizations—and at the same time to celebrate the anticipated expansion and solidification of democracy that the triumph of market economics ought to support? Could it be that the liberalization of commerce on the global level will undermine and not support the spread of democracy—that one devoutly held Western principle would work at cross-purposes with another, equally cherished one? Quite possibly, yes.

There is plenty that we do not know about the global economic future, that we cannot know, and that we will not know in time to make a policy difference. Clearly, what people think and do over the next 25 years will determine the answers to most of the questions raised here. Ultimately, these thoughts will be political as well as economic in nature, and so will the acts that produce the world stretched out ahead of us. And that brings us to the key questions of society and politics.

### *The Socio-Political Future: “How Will the World Be Governed?”*

Individuals have historically granted their allegiance to the state in return for domestic peace, economic well-being, and security from external threats. Sometimes they have done so in the context of a national political community, where the state is an organic expression of social life among kindred people. More often these days, states are composed of more than one ethnic, social, and religious group, leaving the essential social contract of government to rely either on more abstract contractual arrangements, such as those exemplified by the U.S. Constitution, or on more coercive means of implementation. Sometimes they survive mainly by the weight of habit.

The point is that there is nothing immutable about the present arrangements wherein certain peoples are ruled within certain fixed territorial units. It was not always so in the past, and it may not be so in the future. The ties that bind individual or group loyalty to a state can change and even unravel, and the next 25 years portend a good deal of unraveling.

As illustrated above, new technologies will change the way that people do business, on many levels. In some cases, those changes will enhance international cooperation and regional integration; in others, they will divide states and peoples. Many states will lose much of their control over many economic decisions, limiting the means by which they can provide domestic economic growth or domestic peace and security. Violence may increase as disaffected individuals and groups within states attack the agents of change. And the territorial borders of states will not as easily keep dangers at bay as they once did, given the technological advances in weaponry and the global character of potential threats. In all cases, the changes ahead have the potential to undermine the authority of states, and the political identities and loyalties of citizens over the next quarter century will be put through a series of unannounced, and sometimes undetected, tests.

Many observers think that several states will not pass such tests. Some suggest that the principle of state sovereignty itself, and of the state system, is wasting away.<sup>75</sup> The sovereign state as the key actor in international politics is said to be undermined by all of the following: globalization, defined as technological connectivity coupled with transnational economic integration; fragmented nationalism and a return to tribalism;

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<sup>75</sup> Wolfgang H. Reinicke, “Global Public Policy,” *Foreign Affairs*, Nov./Dec. 1997, p. 137.

ecological pressures; international terrorism; an "outbreak" of stable peace; and more besides. Of all these, clearly, globalization is the most widely discussed and debated.

For some, globalization is basically good not only because it encourages global economic growth, but because it may be a vehicle to transcend the system of state sovereignty, seen to be the font of the war-system that plagues humanity. Globalization thus represents for some the withering away of the state by the advent of other means. But others oppose the sovereignty-eroding elements of globalization on ideological grounds. Some do so because the state is the only reliable locus of political accountability, others because globalization is destructive of local community and community control, and still others because they believe that the market theology behind globalization is being used by the corporate rich to grow still richer at nearly everyone else's expense.<sup>76</sup>

Evocative as these arguments may be to some, and as ideologically attractive as they are to others, the contention that the state is about to be overwhelmed as the main organizational principle of global politics is not convincing. The state—whether as multinational empire, nation-state, or any of several other kinds of political entities that preceded them both—has never been at complete equipoise with other social forces. Its role has ebbed and flowed before other challenges many times over the years. Indeed, the centralized state of the 20<sup>th</sup> century is an historic anomaly, and those who foresee the end of the system of sovereign states too often take as their model of the state a highly centralized and fixed entity that does not rest comfortably with historical realities.<sup>77</sup> For all the challenges ahead, the principle of sovereignty, as

vouchsafed within the territorial state, will remain the key organizing principle of international politics for the next quarter century and probably for long after that as well.

That said, the challenges ahead are many and varied, and they go right to the heart of the core relationships between states, and among the state, the nation, and the individual citizen. Even as many states face diminished control and authority over their populations, demands on the state are rising. What will this mean for global politics?

One challenge is demographic in nature. Populations are growing in many developing countries. At the same time, the populations of nearly all developed countries—and some developing countries, too, such as China—are rapidly aging.<sup>78</sup>

As a result of demographic change, many states will have very different social balances in 25 years than they do today. Labor shortages will bring a rising demand for immigrant workers to older and wealthier societies, accentuating social and cultural tensions. Still, the bulk of the dependent population world-

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<sup>76</sup> Critics of different persuasions include John Gray, *False Dawn: The Delusions of Global Capitalism* (London: Granta, 1998); William Greider, *One World, Ready or Not: The Manic Logic of Global Capitalism* (New York: Simon & Schuster, 1997); and Zygmunt Bauman, *Globalization: The Human Consequences* (New York: Columbia University Press, 1998).

<sup>77</sup> Note Peter F. Drucker, "The Rise, Fall and Return of Pluralism," *Wall Street Journal*, June 1, 1999.

<sup>78</sup> While today's ratio of working taxpayers to non-working pensioners in the developed world is 3:1, in thirty years, absent reform, the ratio could fall to 1.5:1 or even lower, costing an additional 9-16 percent of GDP to finance benefits for the elderly. Peter G. Peterson, "Gray Dawn: The Global Aging Crisis," *Foreign Affairs*, Jan./Feb. 1999, p. 46.

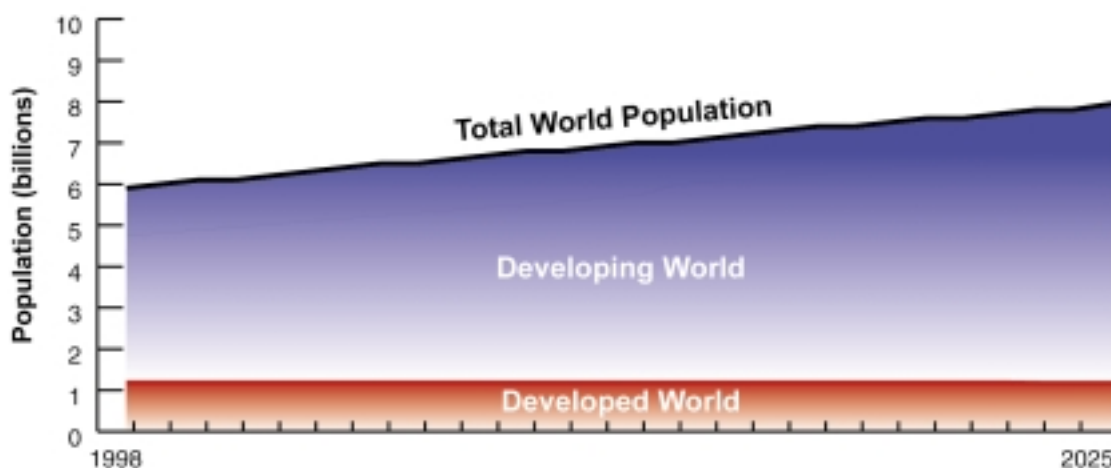
wide will remain children rather than the aged. If these young people are educated and able to find productive employment, economies will benefit; if not, social unrest could follow.

As suggested above, the policies required for economic growth, especially amid high population growth, may result in significant dislocation within a state and directly challenge long-held political or social values. Economic

provide basic social services, particularly health care, sanitation, and education.

If these tensions and dislocations are sufficiently severe and prolonged, some states could unravel. It was no coincidence that the Asian crisis of 1997-98 was soon followed not only by the collapse of the Suharto government in Indonesia, but by increased strains on unity. Malaysia, too, suffered a political crisis that

### **Population Growth in the Developing World**



Source: U.S. Bureau of the Census, International Data Base.

growth will frequently be accompanied by growing disparities in income and wealth, and those with economic and political influence will find that influence under siege. This is bound to generate significant social and political strains within both developed and developing states. It may also lead to increased corruption, including among justice and security officials, which would undermine effective government. Rapid urbanization will accelerate in many developing countries, as well, severely straining many states' ability to

nearly led to mass upheaval—and still may. Even such major states as China, India, Pakistan, South Africa, the Democratic Republic of Congo, Kenya, and Mexico—all of which have large and growing populations—are not immune from partial or even complete collapse.<sup>79</sup>

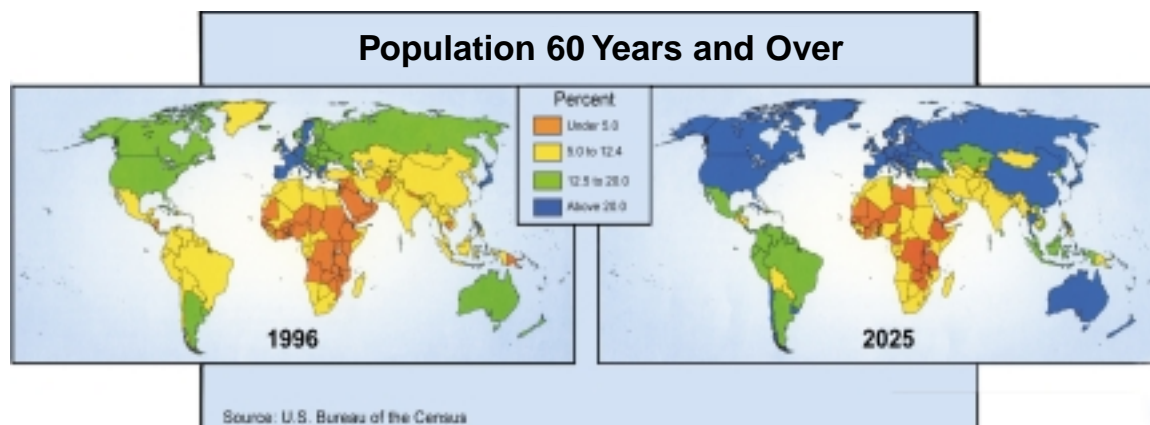
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<sup>79</sup> See Secretary of Defense William S. Cohen, *Annual Report to the President and the Congress, 1999*; Edward Warner, Assistant Secretary of Defense for Strategy and Threat Reduction, Testimony to the House National Security Committee, January 29, 1998; and *1998 Strategic Assessment: Engaging Power for Peace* (Washington, DC: National Defense University, 1998), pp. 15-6.

But there is also good news. An integrated global information network may presage the expansion of political pluralism.

Consider in this regard the collapse of the Soviet Union. There are many ways to account for that collapse—not least the effectiveness of the U.S. strategy of containment over several administrations. But the inability of a closed

and write. As one scholar has put it with reference to the Muslim world, “The combination of mass education and mass communications is transforming the Muslim majority world. . . . Multiple means of communication make the unilateral control of information and opinion much more difficult than it was in prior eras and foster, albeit inadvertently, a civil society of dissent. . . . The result is the collapse of hierarchical notions . . . and the emergence of a new



political system to accommodate itself to economic imperatives based on openness, the flow of information, and new market demands was a major complementary factor. If this was true for an age of television and relatively primitive personal computers, the age of the Internet may doom nearly all closed political systems to the ash heap of history. In short, vast new pressures for democratization are likely to be felt and, where those pressures succeed, it will make states more responsive to the needs of their citizens. In most cases, at least, that suggests both better and more legitimate governance.

The steady progress in Asia, Africa, and Latin America in mass education and literacy also comes into play here. After all, the diffusion of information technology can only carry social clout to the extent that people can read

common public space.” The emergence of a civil society is a precondition for genuine democracy, and by “multiplying the possibilities for creating communities and networks among them,” civil society tends to advance democracy’s way.<sup>80</sup>

One must be careful here, for literacy does not guarantee democracy, and mass education and authoritarian political styles can co-exist for a long time. Nevertheless, seen together, the spread of mass communications, broad progress in education and literacy, improving economic well being, and the growth of political liberalism on a global scale have potentially

<sup>80</sup> Dale Eichelman, “The Coming Transformation of the Muslim World,” The 1999 Templeton Lecture on Religion and World Affairs, Foreign Policy Research Institute, June 9, 1999.

huge implications. Economic logic may also join with and magnify an important social impact of 20<sup>th</sup> century technology. Citizens of the advanced states are increasingly less willing to fight or support messy wars partly because technology has made life much less risky and frail than it once was. Since life is no longer so “cheap,” casualties have become far more expensive.<sup>81</sup> The spread of such characteristics to more of the world could have a similar effect, the sum being to make war less frequent and bloody. Some even believe that, for this and other reasons, major war will soon become obsolete.<sup>82</sup>

A combination of increasing wealth, personal security, education, and more widespread democracy may indeed herald a new era, not one created by grand treaties and the solemn inauguration of multilateral institutions, but one that grows from individual hearts and minds. But even if peace and democracy do not triumph worldwide—and it is not very likely that they will in the next 25 years—autocrats and dictators will find it more difficult to control their citizenry for a new reason as well as for older ones. Beyond the inability of authoritarian governments to control the flow of information *within* their borders, individuals and groups will be able to act *internationally* without reference to the state in a way and at a level heretofore unimaginable. Mass action across borders is already establishing new international norms, and there is a good prospect that non-governmental organizations and grassroots interest groups will have influence across even those frontiers guarded by authoritarians.<sup>83</sup>

In democratic states, such developments may promote stability by facilitating greater citizen participation in the political and civic

life of the state. Possibly, however, such developments can have less than sanguine effects. Democracy can have an illiberal and even a demagogic side, and new democracies seem prone to aggressive behavior. Pressure for democracy in heterogeneous states can also portend their fragmentation into smaller units that better reflect cultural, ethnic, or religious identities. Sometimes this fragmentation will occur without violence, but often enough it will not—and when it does not, catalytic regional crises could follow in its wake. Pressures for democracy in Indonesia contributed to secessionist movements in East Timor, Aceh, Irian Jaya, and the South Molucca Islands. Pressure for democracy in China, too, will likely stoke independence movements in Tibet and in Xinxiang province. Not only will there likely be a wider economic polarization between haves and have-nots, but also a wider *polarization of legitimacy* between democratically governed polities and authoritarian ones.

States unable to provide economic well-being, political liberty, or domestic security

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<sup>81</sup> A point nicely put, with some supporting data, in Janna Malamud Smith, “Now That Risk Has Become Our Reward,” *New York Times*, July 25, 1999 (Week in Review), p. 15. This does *not* mean that citizens of advanced societies are casualty averse in any absolute sense. The data show that most Americans will accept high casualties if they can be justified on the basis of threats to key interests. See John Mueller, “The Common Sense,” *The National Interest*, No. 47 (Spring 1997).

<sup>82</sup> See, for example, John Mueller, *Retreat from Doomsday: The Obsolescence of Major War* (New York: Basic Books, 1989), and Michael Mandelbaum, “Is Major War Obsolete?” *Survival*, Winter 1998-99.

<sup>83</sup> A brief but vivid account, with some examples, is Barbara Crossette, “The Internet Changes Dictatorship’s Rules,” *New York Times*, August 1, 1999 (Week in Review), pp. 1, 16. See also Akita Iriye, *Cultural Internationalism and World Order* (Baltimore, MD: Johns Hopkins University Press, 1997).



for their citizens may also be subject to significant emigration, particularly of their most educated citizens. Advanced states may need more technically educated workers, too, the combination giving rise to unprecedented levels of emigration among educated elites from those states that do not work to those that do. This will make successful states more diverse and cosmopolitan, and others more prone to failure.

Clearly, then, there are forces at work straining the mythic fabric that links society to the state. Other strains may rend the link between the individual and the anchors of authority in society itself.

During periods of great tumult, people frequently turn to religion or ideology to explain change and to gain some psychological security from its disruptions. As noted above, the dislocations of the Industrial Revolution helped produce the socialist ideologies of the 19<sup>th</sup> and 20<sup>th</sup> centuries. On a lesser scale, the dislocations of the post-World War II era in Western societies created parallel social and political perturbations in many countries: the undermining of urban economies; rising divorce, suicide, and crime rates; and a significant decline in voting and other forms of political participation.<sup>84</sup> It makes sense, then, to ask what similar reactions we might expect from the tumult in our collective future, and what those reactions might mean for state cohesion and effectiveness.

Since different societies begin from different circumstances, their reactions to rapid change will surely differ. Many in the West think that its notion of modernity, where the sacred is privatized and secular values predominate, is a model that other societies must invariably follow. But this is not so. The re-

placement for an enfeebled Iranian royal regime in the 1970s did not come from radical leftist groups, but from the pre-modern Shi'a religious community. So, too, we have seen a turn to pre-modern forms in much of the Muslim world, among some Jews within and outside of Israel, and within India in the form of Hindu nationalism. Pressures toward secularization inherent in the Western technology that will flood much of the world over the next 25 years will not necessarily overcome traditional ways, but might instead reinvigorate them. One consequence of psychological dislocation in individuals may be to drive them closer to their own social mores, and to the extent that the state is seen as a legitimate expression of those mores, closer to the state as well.

In short, some states may elect not to join in rapid technological innovation or an integrated global economy. Among such states history will not have ended, and the world of contending "isms" will remain very much alive. There is a chance, too, that those states might ally to oppose these developments. Geopolitics could become, in essence, a form of culture politics.<sup>85</sup> The conflicts one might expect from such culture politics would not exactly fit the definition of a religious war, but there could be some striking similarities.

Even if secularization does make many inroads, the vistas along the path will not be the same in all cases. Every culture that accepts, or cannot resist, a synthesis of the old and the new, or between the West and the rest, will find its own way to cope with conflict. What seems clear, as well, is that in-

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<sup>84</sup> Fukuyama, *The Great Disruption*.

<sup>85</sup> This possibility is, of course, consonant with Samuel Huntington's *The Clash of Civilizations and the Remaking of World Order* (New York: Simon & Schuster, 1996).



dividuals in societies will have more options as *individuals* than before. They will have greater access to other ways of thinking, they will know more about other cultures than did preceding generations, and they will have greater opportunity to experience them firsthand. Hence, it seems likely that in more cases than ever before, an individual's or a group's identification with the state may be superseded by other forms of associations beyond the state, as well as within it in the form of ethnic, religious, ideological, or tribal based organizations.

It also stands to reason that states lacking a secular cultural and historical heritage will be particularly vulnerable to the increased porosity of cultural boundaries. Most modern Western polities are culturally as well as politically pluralist. Most traditional, non-secular cultures tend not to be either.

What are we to make of all this? The most persuasive conclusion that emerges from looking at the pressures liable to be brought to bear on states, and on how states of different capacities may respond to those pressures, is that we will have a mosaic of consequences—as we have always had. States will differ in various ways, in their power and influence, their histories, and the degree to which their citizens give them their allegiance. They will differ in their economic development, strength of social and political institutions, and demographic profile. They will differ, too, in the extent to which the national identities in their midst predispose them to exist as nation-states, as multinational empires, or as stateless nations within an evolving international system.

The role and characteristics of states in the next century will depend on how they respond to the challenges that will confront

all countries. Some will be able to seize technological and economic opportunities, while others will find themselves threatened. Some will be able to establish the regulatory regimes and the social and political infrastructure necessary for economic growth, and some will be able to introduce political institutions that are responsive to the new demands of their citizens. But others will not. Some will wish to resist change but fail, garnering the worst of all worlds. And perhaps most important, only some will find the leadership they need to guide them through an era of considerable uncertainty.

The result will be that some states will succeed in meeting the multiple challenges of global economic integration—we know this because some have already found formulas to do so.<sup>86</sup> Some states will survive, but have such serious difficulties that their citizens turn to other groups (ethnic, cultural) to give allegiance and seek shelter, which will further undercut the state's authority and capacity to respond to challenges. Some states will disappear, and new ones will be formed on the basis of ethnic, national, or religious identities. Some states will fail, and in failing fall into social and political chaos, exporting refugees, famine, disease, and violence across neighboring borders.

The ideal of universal human rights will also challenge the traditional concept of state sovereignty. A small army of certain NGOs is carrying forward the old idea that state sovereignty is more a menace to individual human rights than a protector of them, and this idea is gradually being armed

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<sup>86</sup> See again Weiss' *The Myth of the Powerless State*; and "The Thing That Won't Go Away," *The Economist*, July 31, 1999, pp. 8-10.

institutionally, most significantly in the proposal to create an International Criminal Court. The contentious case of Augusto Pinochet, too, has illustrated the “spontaneous” evolution of international law toward views that undermine sovereignty in favor of undifferentiated human rights criteria. And while the legal spillover of the NATO military campaign against Serbia on behalf of the Kosovar Albanians is still evolving, it may establish a powerful precedent in validating the ascendancy of the right to self-determination over that of sovereignty within the United Nations Charter, which, famously, includes both.<sup>87</sup> Whatever the full range of its motivations, the campaign in Kosovo was the clearest example in modern times of a major power or alliance intervening militarily into the internal affairs of another sovereign state, avowedly on behalf of minority rights.

Honest people disagree over whether this is a benign legacy or not. There are those who believe that a minimally decent world order cannot arise so long as depredations such as those of Kosovo can go on with impunity anywhere in the world. They applaud the erosion of sovereignty over such questions, as well as others.<sup>88</sup> There are other observers, however, who point out that international stability depends on respect for the prerogatives of the state. And many object to Americans assuming the right to decide unilaterally when some other country’s behavior exceeds America’s self-defined moral standards.<sup>89</sup> Moreover, others worry that the denaturing of sovereignty begs the question of who gets to decide when a depredation is internationally actionable—in other words, who gets to say what is and is not a “just war”? Nor is it at all clear what line of democratic accountability at the transnational level will substitute for that of the state.<sup>90</sup> Can a host of international

civil servants, professional human rights lobbyists and lawyers, and aid organization trustees—formally accountable to no one—really be trusted to know what is best in every case, or any case?

This is a question recently born as far as the history of international relations goes. It will mature rapidly over the next 25 years, as will several others. For example, it may become necessary to design some sort of legal personality for political entities that are less than states but more than mere groups of individuals—such as Kosovo and the Kurdish areas of northern Iraq. If we are to see more efforts by minorities to establish zones of autonomy for themselves, as seems likely, then how will an increasingly salient number of non-national institutions, such as the World Bank, the International Criminal Court (should one come into being), or UNESCO, deal with such ambiguous entities?

In any event, there is little doubt that transnational actors of other sorts will grow in number over the next 25 years. Some will represent positive responses to technological, economic, and political challenges (multinational corporations, non-governmental organizations) and others negative responses (drug cartels, terrorist networks, and criminal

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<sup>87</sup> Chapter 1, Article 1, paragraph 2, as opposed to Chapter 1, Article 2, paragraph 7.

<sup>88</sup> See Marianne Heiberg, ed., *Subduing Sovereignty: Sovereignty and the Right to Intervene* (London: Pinter, 1994).

<sup>89</sup> See Samuel Huntington, “The Lonely Superpower,” *Foreign Affairs*, March/April 1999; and David Sanger, “America Finds It’s Lonely At the Top,” *New York Times*, July 18, 1999 (Week in Review), p. 1.

<sup>90</sup> Some of these issues are discussed in David Rieff, “The Precarious Triumph of Human Rights,” *New York Times Magazine*, August 8, 1999.

cells). In some cases, these latter groups will take on certain aspects of statehood, controlling territory, levying taxes, even raising armies.

States will also find themselves in need of cooperation with other states, if they are to seize the opportunities presented by global changes and respond to the dangers. Of this we may be sure. What we do not know is whether and how regional groupings of various sorts may emerge, and with what kinds of responsibilities and authorities. We do not know whether the United Nations and other global political institutions will continue to exist as creatures of states, or whether they will be empowered to act in certain areas in place of states. We do not know whether regional or global regimes will be established to prevent the spread of dangerous technologies and weapons, and if they will have the authority and ability to enforce their mandates.

This is a lot not to know, and there is yet more. At the risk of seeming quaint, it behooves us to note a final uncertainty. Not all of what befalls the world of states over the next quarter century will be a function of how leaderships and populations adjust to the challenges of new technologies or accelerating global economic integration. The beginning of wisdom is perhaps to recognize that what counts is not only what is changing, but also what is not. There is still the old-fashioned problem of geopolitics, and nowhere does this problem look clearer—and more dangerous—than in the Pacific rim, where the triangular relationship between Chinese, Koreans, and Japanese holds the key to peace or war.

Within the logic of geopolitics is the unpredictability of personality and the

happenstance of illness and death among leaders. Not every historian is convinced, but most believe that had it not been for the hypnotic political skills of Adolph Hitler, World War II would never have happened. While Hitler is the 20th century's most obvious example of evil enthroned, history bears other examples from this century and other centuries, too. It is not possible to rule out the rise of "crazy states"<sup>91</sup> with psychologically aberrant or evil leaders in the future, and the shock to the system that such a leader can produce should never be underestimated. In the future, it may be that, with weapons of mass destruction more widely available, even the unglued leader of a relatively small state will exceed the threshold of danger to the system as a whole.

### *The Military-Security Domain: "How Will Societies Protect Themselves?"*

The military-security environment of the next 25 years will be shaped by a unique and substantially unfamiliar set of political, economic, technological, social, and cultural forces described elsewhere in this study. As in the past, conflict will be driven by perturbations in the political order, social dislocation, passionately held beliefs, economic competition, and cultural division. In this section, however, the purely military and security dimensions of the future are brought into focus. Societies will still need to protect themselves in 2025, and they will have to do so against an unprecedented range of threats and actors.

As with most periods of rapid change, both the actors and the means by which

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<sup>91</sup> Yehezkel Dror, *Crazy States: A Counterconventional Strategy* (Lexington, MA: Heath Lexington Books, 1971).

violence is used in pursuit of political goals may shift abruptly. Non-state actors, individuals as well as groups, will gain power and influence, and many will have at their disposal alarming means of destruction. Many states may see the coherence of national identification lose its grip at the individual level, with critical implications for their ability to mobilize and fight, as well as for the structure of their civil-military relations.

Even in a world in which major wars are less frequent, and in which growing prosperity adds incentive for the peaceful resolution of disputes, there will still be enough unsettling change to touch off any number of wars, internal upheavals, incidents of terrorism, and general mayhem. The end of the Cold War did not mean the end of all conflict and, with a decade to ponder the emerging evidence, no sentient person can doubt the potential lethality of future conflict.

We explore these trends and patterns in three parts. First, we look at what sorts of states, groups, or individuals will incline to use force. Second, we look at what kinds of military capabilities are likely to be on the loose for such use. And third, we look at the environment likely to be formed by the conjunction of the two.

Interstate wars will not disappear over the next 25 years.<sup>92</sup> Developed nations will be loath to fight each other, but as proven in 1914, neither the bonds of interdependence nor a taste for affluence can guarantee peace and stability indefinitely. Major powers—Russia and China are two obvious examples—may wish to extend their regional influence by force or the threat of force. Conflicts among old adversaries may continue, such as between India and

Pakistan.<sup>93</sup> Misperception or miscalculation will remain possibilities and both may be exacerbated by the introduction of new military technologies. Conflicts could arise out of efforts to right perceived wrongs or to gain strategic advantage, and wars will still be fought over disputed borders, resources, and irredentist claims. The history of the 1930s remains instructive, too, for the reversion to assertive nationalism by leaders faced with unsettled social and economic conditions is not beyond imagination. Conventional war—ships, tanks, and planes—will remain the most relevant *modus operandi* for most of these conflicts.

Violence within states, on the other hand, could reach unprecedented levels. Generated by ethnic, tribal, and religious cleavages, and exacerbated by economic fragmentation and demographic shifts, such violence will form by far the most common type of conflict in the next quarter century. Brutish, nasty, not necessarily short, and potentially genocidal in scope, these conflicts—mostly but not entirely in non-Western domains—could result in major disruptions, killing hundreds of thousands of people each year.<sup>94</sup> Undisciplined tribal or ethnic based paramilitary groups will often be the primary agents of such conflicts, which will involve soldiers and civilians alike. They may also take place

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<sup>92</sup> See the arguments in “Is Major War Obsolete: An Exchange,” *Survival*, Summer 1999, pp. 139-52.

<sup>93</sup> As noted below, a war involving India, Pakistan, and possibly Iran is not so very unlikely, but analysts differ over whether such powers should be defined as “major.”

<sup>94</sup> Not that the toll from such wars is vastly different now from Cold War times, despite a common perception to the contrary. See Yahya Sadowski, *The Myth of Global Chaos* (Washington, DC: Brookings Institution Press, 1998), p. 121; and Shashi Tharoor, “The Future of Civil Conflict,” *World Policy Journal*, Spring 1999, pp. 1-11.

in urban areas or in other terrain that tends to neutralize the current technological advantages of modern militaries.

While such conflicts need not disrupt the core strategic interests of major powers, they will do so if they trigger larger interstate conflicts, grossly violate internationally accepted norms, or create massive flows of refugees, disease, and environmental degradation. The latter is particularly likely since such conflicts often generate humanitarian disasters that are hard to ignore in an age of mass communications. Yet major powers cannot intervene for humanitarian purposes without also intervening in the underlying politics that create such troubles in the first place. The Somalias, Bosnias, Rwandas, Kosovos, and Haitis of the world will not disappear, and neither will the dilemmas they pose.

There will also be a greater probability of a far more insidious kind of violence in the next millennium: catastrophic terrorism.<sup>95</sup> While terrorism itself is nothing new, the nature of terrorism and the means available to tomorrow's terrorists are changing.

Future terrorists will probably be even less hierarchically organized, and yet better networked, than they are today. Their diffuse nature will make them more anonymous, yet their ability to coordinate mass effects on a global basis will increase. Teamed with states in a regional contingency, they could become the "ultimate fifth column."<sup>96</sup> Terrorism will appeal to many weak states as an attractive asymmetric option to blunt the influence of major powers. Hence, state-sponsored terrorist attacks are at least as likely, if not more so, than attacks by independent, unaffiliated terrorist groups. Still, there will be a greater incidence of ad hoc cells and individuals, often moved by religious zeal, seemingly irrational cultish

beliefs, or seething resentment. Terrorists can now exploit technologies that were once the sole preserve of major states and pose attacks against large domestic population centers.

The growing resentment against Western culture and values in some parts of the world—as well as the fact that others often perceive the United States as exercising its power with arrogance and self-absorption—is breeding a backlash that can take many forms. Terrorism,

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<sup>95</sup> Government studies on this topic include: *Combating Proliferation of Weapons of Mass Destruction*, Report of the Commission to Assess the Organization of the Federal Government to Combat the Proliferation of Weapons of Mass Destruction, July 14, 1999; "Executive Summary," *Report of the Commission to Assess the Ballistic Missile Threat to the United States*, July 15, 1998; *Transforming Defense: National Security in the 21st Century*, Report of the National Defense Panel, December 1997; and W. Cohen, *Proliferation: Threat and Response*, OSD Report to Congress, November 1997. Major private research studies include: Fred C. Iklé, *Homeland Defense* (Washington, DC: CSIS, 1999); and William Webster, et al., *Wild Atom: Nuclear Terrorism* (Washington, DC: CSIS, 1998). Key periodical literature includes: Fred C. Iklé, "The Problem of the Next Lenin," *The National Interest*, No. 46, Spring 1997; and Walter Laqueur, "The New Face of Terrorism," *The Washington Quarterly*, Autumn 1998. Recent books include: Joshua Lederberg, ed., *Biological Weapons: Limiting the Threat* (Cambridge, MA: MIT Press, 1999); Richard Danzig and Pamela Berkowsky, *Biological Weapons—Limiting the Threat* (Cambridge, MA: MIT Press, 1999); Jessica Stern, *The Ultimate Terrorists* (Cambridge, MA: Harvard University Press, 1999); Richard A. Falkenrath, et al., *America's Achilles' Heel* (Cambridge, MA: MIT Press, 1998); Philip B. Heyman, *Terrorism and America: A Commonsense Strategy for a Democratic Society* (Cambridge: MIT Press, 1998); Ken Alibek with Stephen Handelman, *Biohazard: The Chilling True Story of the Largest Covert Biological Weapons Program in the World* (New York: Random House, 1999), and Bruce Hoffman, *Inside Terrorism* (New York: Columbia University Press, 1998).

<sup>96</sup> Hoffman, *Inside Terrorism*, p. 196.



however, appears to be the most potentially lethal of such forms. Therefore, the United States should assume that it will be a target of terrorist attacks against its homeland using weapons of mass destruction.<sup>97</sup> The United States *will be vulnerable to such strikes*.

If that were not a sobering enough prospect, most advanced conventional military weapons and systems will also be more broadly distributed between now and 2025. Domestic political and economic incentives will lead to the development and sales of advanced aircraft, modern ground fighting vehicles, and new naval systems throughout the world. Only cutting-edge systems will remain closely held.

It is not even clear whether the major arms exporters will cooperate to prevent the sales of such weapons systems to states and other groups that pose major potential threats to regional stability and peace. A minimal export control regime already in operation, the Wassenaar Arrangement, could be enhanced, but this depends on the positive evolution of the international political climate. It also depends to some degree on the ability of the exporting states to find alternatives to legacy industries still heavily in the business of manufacturing weapons.

Conventional weapons systems will be characterized by an increasing emphasis on speed, stealth, lethality, accuracy, range, and networked operations. The era of Industrial Age platforms operating with impunity in the open may become outdated, as long-range precision capabilities proliferate in all dimensions of warfare (air, sea, and land).<sup>98</sup> There will be a greater premium on highly integrated and rapidly deployable forces. The age-old interaction of capabilities and counter-measures will continue, of course, and physics probably favors detection and the

ultimate demise of stealthy systems and large platforms. But “ultimate” can mean a long time, and, as opponents try to defeat existing U.S. technologies, new technologies and ways of employing these weapons will abet the continuation of current U.S. advantages. The widespread adoption of MEMs into U.S. military technology, for example, may provide significant new qualitative advantages over a broad range of capability. New intelligence capabilities derived from biotechnology, including the use of insects for selected purposes, may also be at hand.

Nonetheless, many states will pursue strategies to acquire today’s modern weapons. These weapons will no longer be cutting-edge technology by the 2015-2025 timeframe, but they may be widely available and, in local wars, could prove decisive.<sup>99</sup> Just as likely, the relatively rapid spread of modern conventional weapons could destabilize several trouble zones and make regional wars both more likely and far more destructive.<sup>100</sup> The acquisition of such weapons will probably be pursued with alacrity by military regimes and other regimes

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<sup>97</sup> See Ian O. Lesser, Bruce Hoffman, John Arquilla, David Ronfeldt, and Michele Zanini, *Countering the New Terrorism* (Santa Monica, CA: RAND, 1999); and Zalmay Khalilzad, David Shlapak, and Ann Flanagan, “Overview of the Future Security Environment,” *Sources of Conflict in the 21st Century: Regional Futures and U.S. Strategy*, Zalmay Khalilzad and Ian O. Lesser, eds. (Santa Monica, CA: RAND, 1998).

<sup>98</sup> See Michael G. Vickers, *Warfare in 2020: A Primer* (Washington, DC: Center for Strategic and Budgetary Assessments, 1996).

<sup>99</sup> Obtaining equipment is one thing, assimilating it intelligently is another. See Chris C. Demchak, *Military Organizations, Complex Machines: Modernization in the U.S. Armed Services* (Ithaca, NY: Cornell University Press, 1991).

<sup>100</sup> See John Weltman, *World Politics and the Evolution of War* (Baltimore, MD: Johns Hopkins University Press, 1995).



for whom robust military capabilities play a major role in internal security.

While the market for 20<sup>th</sup> century conventional weapons will remain brisk, some important states will choose acquisition strategies to compete *asymmetrically* against major powers. These potential adversaries will invest in relatively inexpensive systems intended to deny the United States the advantages that naturally accrue with technological superiority. Weapons of mass destruction would serve this purpose.<sup>101</sup> Developing such weapons does not require a large industrial base or extensive scientific research support as it once did. The international norms against the spread of these weapons are being challenged, and the global export control regimes covering nuclear, chemical, and biological weapons will not effectively keep them from state and non-state actors that are determined to acquire them.<sup>102</sup> Some countries will supply these weapons, or components for them, for commercial and political purposes. Problems will also exist in ensuring the security of these weapons and weapons components in individual countries.

The extent to which nuclear, biological, and chemical weapons will be developed and used will depend on a variety of factors. Nuclear materials and technology are available, but the cost of producing nuclear weapons is high, as are the risks of detection. The development and use of radiological weapons would be easier and cheaper. By pairing conventional explosives with radioactive materials like plutonium, such a weapon could generate both a major explosion and contaminate a large surrounding area for an extended period.

Chemical weapons are much easier to produce than nuclear and radiological weapons, but they are harder to store and use

effectively. Their effectiveness is subject to uncontrollable climatic elements and the lethality of chemical weapons per unit of weight is generally low.<sup>103</sup> This makes chemical weapons generally suitable for use in attacking conventional armies concentrated in the field, or against small groups of surprised or immobile civilian populations. But such weapons are unlikely to be a preferred tool for terrorizing entire cities.

Biological weapons are the most likely choice of means for disaffected states and groups of the 21<sup>st</sup> century. They are nearly as easy to develop as chemical weapons, they are far more lethal, and they are likely to become easier to deliver.<sup>104</sup> At present, many biological agents require special technical expertise to distribute them effectively, such as drone aircraft that are capable of dispersing agents in the right concentrations at the right altitudes and under the right meteorological conditions. This is not simple, as extensive but unimpressive Iraqi efforts in the 1990s have shown. On the other hand, given enough time, perfecting methods of dispersal will take far less technical sophistication than that required to build a nuclear bomb.

Moreover, bio-weapons can be produced at small, dual-use facilities, and then reproduced

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<sup>101</sup> Cohen, "Preparing for a Grave New World."

<sup>102</sup> SECDEF address at the Conference on Terrorism, Weapons of Mass Destruction, and U.S. Strategy, University of Georgia, April 28, 1997; SECDEF News Conference, Release of OSD Report on WMD Proliferation, November 25, 1997; SECDEF Annual Report to the President and the Congress, March 1998, p. 26; and Acting CIA Director George Tenet, Testimony to the Senate Armed Services Committee, February 5, 1997.

<sup>103</sup> There are some exceptions, VX being the most important.

<sup>104</sup> Weight for weight, microbial agents such as anthrax are thousands of times more potent than nerve gasses such as sarin. Lederberg, p. 286.

in mass quantities using technologies and procedures common to micro-breweries and civilian pharmaceutical labs. A bio-weapon arsenal can be acquired for as little as \$10,000-\$100,000.<sup>105</sup> Several countries are pursuing biological agents, and some are getting help from outside their borders. Biological weapons experts formerly employed by the Soviet Union have testified that the extent of the Soviet program was massive, but that control of the physical and intellectual assets of the former program is virtually nonexistent. Accordingly, a variety of improved toxins and biological agents are becoming more widely available. Technological developments in genetics and biotechnology portend even more sinister advances with the design and deployment of genetically engineered pathogens that could thwart most antibiotics and vaccines, and readily outcycle our detection, antidote development, and distribution timelines. These could include genetically-altered smallpox.<sup>106</sup>

Given such circumstances, the prevention of the proliferation of biological weapons through treaties and a regime of export controls is unlikely to be effective. A Biological Weapons Convention (officially, the Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological [Biological] Toxin Weapons and on Their Destruction) has been signed and ratified by 140 countries. But since the treaty was open to signature in April 1972, the number of countries known to have or suspected of having biological weapons has doubled.<sup>107</sup> The BWC has no enforcement or inspection mechanism, although negotiations are underway to provide for them.

U.S. deterrence policy will remain effective against acknowledged nuclear states, and the deliberate use of these weapons will remain a low probability. But as other states acquire nuclear weapons, that probability will

likely increase. Whether states take such a step will be a function of many factors, primarily related to the threats they see within their own region. The literal costs of developing nuclear weapons, the political costs associated with their use, and the difficulty of hiding their development, make them less likely to emerge as a primary instrument of state policy. Still, given their vast destructive power, the United States will continue to deal with the threat posed by nuclear weapons throughout the next 25 years. There will be no abolition, and even the existence of the Non-Proliferation Treaty and wide ratification of test ban treaties will not significantly reduce the problem.

Non-state actors will also use these weapons in direct attacks. Such attacks expose the Achilles' heel of the modern world. All open societies are vulnerable to extensive psychological and physical harm from weapons of mass destruction. The potential for covert delivery of these sinister products will be high, much higher than during the last half century. Covert threats are more likely than overt ones since they avoid easy attribution and hence likely reprisal. The immense lethality, portability, and accessibility of WMD will be major sources of concern over the whole of the next quarter century.

Missile threats will also continue to proliferate. While the regime of missile producers, known as the Missile Technology Control Regime (MTCR), will survive and may

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<sup>105</sup> Falkenrath et al., p. 112.

<sup>106</sup> See Richard Preston, "The Demon in the Freezer," *The New Yorker*, July 12, 1999, pp. 44-61.

<sup>107</sup> J.D. Holum, *Remarks for the Fourth Review Conference of the Biological Weapons Convention* (Geneva: U.S. Arms Control and Disarmament Agency, November 26, 1996). See also Robert P. Kadlec, Allan P. Zelicoff, and Ann M. Vrtas, "Biological Weapons Control: Prospects and Implications for the Future," in Lederberg, pp. 95-111.

be strengthened, it is becoming increasingly easy for states not party to the MTCR to master the technology necessary for such production. If Iran, Iraq, North Korea, Pakistan, and India can foil the best efforts of the MTCR, the prospect is that even less technologically sophisticated states may be able to do so in future.

Ballistic and cruise missiles are liable to be the long-range weapons of choice, given their capabilities to threaten land and sea targets from afar. The accuracy and lethality of such systems will increase significantly between now and 2025, even for the delivery of conventional ordnance.<sup>108</sup> The competition between missile developments and defensive systems will be a key operational challenge over the next several decades. Large-scale missile attacks will be able to overwhelm defensive systems, despite considerable improvements to them. American bases abroad will become vulnerable to these weapons.<sup>109</sup> Additionally, a number of new lethal and non-lethal technologies will be developed and fielded, including microwave, directed energy, and chemical/biological agents that could give small powers the ability to thwart power projection operations by any major power.

In addition to “traditional” weapons of mass destruction, new forms of Strategic Information Warfare (SIW) will be developed and perhaps used as a new form of offensive warfare. SIW involves cyber-attacks against major national command systems and military-related operating systems.<sup>110</sup> Bytes will not replace bullets and bombs in conflict, but those who cannot match the conventional strength of major powers will have strong incentives for such asymmetric attacks. Given that the commercial world, not governments, is developing these technologies, and that military telecommunications are heavily dependent on commercial access, the potential exists for serious disruption of routine military operations in both peacetime and war. The United States and its allies are particularly vul-

nerable to such methods since our economies and military forces are heavily, and increasingly, reliant on advanced information technologies. While countermeasures can be developed, this new form of warfare will be an important part of the military landscape for some time.

In addition to weapons of mass destruction, there is a new concept—the “weapon of mass disruption”—to which modern societies, rather than their militaries, are increasingly vulnerable.<sup>111</sup> As noted above, the computational and information processing capacities generated by the computer revolution are critical to modern financial, banking, energy, telecommunications, medical, and transportation networks. The health, welfare, and prosperity of the citizens of the developed world depend upon this infrastructure. But that infrastructure is an enticing target to disaffected states and terrorists, who can achieve almost as much damage with a keyboard as with a bomb. Imagine, for example, a well-planned

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<sup>108</sup> Center for Counterproliferation Research, *The NBC Threat in 2025* (Washington, DC: National Defense University, 1997).

<sup>109</sup> See Paul Bracken, “America’s Maginot Line,” *The Atlantic Monthly*, December 1998, pp. 85-93; and Paul Kugler, *Changes Ahead: Future Directions for the U.S. Overseas Military Presence* (Santa Monica, CA: RAND, 1998).

<sup>110</sup> See Frank J. Cilluffo, et al., *Cybercrime, Cyberterrorism, Cyberwarfare....Averting an Electronic Waterloo* (Washington, DC: CSIS, 1998); and Roger C. Molander, Peter A. Wilson and Robert H. Anderson, “U.S. Strategic Vulnerabilities: Threats Against Society,” in Zalmay M. Khalilzad and John P. White, *Strategic Appraisal: The Changing Role of Information in Warfare* (Washington, DC: RAND, 1999), pp. 253-80.

<sup>111</sup> Including the United States. See *Preparing for the 21<sup>st</sup> Century*, Commission on the Roles and Capabilities of the United States Intelligence Community, 1996, p. 27; Organisation for Economic Cooperation and Development, *21<sup>st</sup> Century Technologies—Promises and Perils of a Dynamic Future* (Paris: OECD, 1998), pp. 14-5; and Walter B. Wriston, “Bits, Bytes, and Diplomacy,” *Foreign Affairs*, September/October 1997, p. 172.

attack against the air-traffic control network on the east coast of the United States as more than 200 commercial aircraft are trying to land in rain and fog on any given weekday morning.

Numerous incidents of computer penetration have already occurred, often mounted by teenagers using relatively unsophisticated systems. Better educated or well-financed “automata assassins” could do far more damage, especially if they are abetted by insider personnel. A plethora of new tactics and techniques to “infiltrate” critical systems now exist. Modern hacker techniques such as “sniffers,” logic bombs, mutating viruses, and Trojan horses, are increasingly common. The innate complexity and connected nature of information-based systems generate opportunities for hackers, terrorists, or antagonistic states to cause mischief and harm. Our increased reliance on these information systems ensures that disruption to them will create serious dislocations within our society. *No nation in the world is more vulnerable in this regard, or has more to lose, than the United States.*

Outer space, as well as cyberspace, will become a warfare environment. Space-based systems are increasingly critical to both international commerce and military capabilities. By the early 21<sup>st</sup> century, such systems will offer such an invaluable advantage that continued access to space will be considered synonymous with national security. Space access will become as important as access to the open seas was for major powers in the 18<sup>th</sup>, 19<sup>th</sup>, and 20<sup>th</sup> centuries. Not surprisingly, therefore, there are complications ahead.

The benefits to global commerce derived from space have vastly increased investment in space technology and expertise, a trend that will no doubt continue. The national security implications of such investments are dramatic.<sup>112</sup> With more than \$100 billion invested today, the United States has a clear economic interest in ensuring

its own continued access to space.<sup>113</sup> But the number of states and groups capable of exploiting space as an environment is expanding as a result of commercialization. More than two-thirds of today’s 600 satellites are foreign-owned, and of the more than 1,500 new vehicles that will be launched over the next decade, most will be internationally owned or operated by various consortia. This raises a major intelligence challenge, for, as space systems proliferate, it will be more difficult to determine their capabilities and who has access to their data.

Since satellites are the ultimate pre-positioned asset and, because they are so central to military operations, what happens in space will be critical.<sup>114</sup> Most likely, weapons will be deployed in space. Some systems may be capable of direct fires from space against targets on earth. It is possible that international treaties will ban such weapons, as is the case today for weapons of mass destruction, but that is not assured. What is clear is that space will become permanently manned.

Space will also enter into competitive planning and strategies in ways that are barely conceived today. Future adversaries

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<sup>112</sup> See Lt. Gen. Patrick M. Hughes, Director, Defense Intelligence Agency, “Global Threats and Challenges to the United States and Its Interests Abroad,” Statement for the Senate Select Committee on Intelligence, February 5, 1997.

<sup>113</sup> Institute for National and Strategic Studies, *Strategic Assessment 1999* (Washington, DC: National Defense University, 1999)

<sup>114</sup> See Thomas T. Bell, *Weaponization of Space: Understanding Strategic and Technological Inevitabilities*, Occasional Paper No. 6 (Air University, Maxwell Air Force Base: Center for Strategy and Technology, Air War College, January 1999); Dana J. Johnson, Scott Pace, and C. Bryan Gabbard, *Space Emerging Options for National Power* (Santa Monica, CA: RAND, 1998); and Christopher Lay, “Can We Control Space?” presentation to Electronics Industry Association, October 1997.

will realize that assured access to information is a key component of U.S. military strategy and, specifically, to the sort of military operations envisioned by the Joint Chiefs of Staff.<sup>115</sup> Thus, negating U.S. conventional superiority through the denial or negation of information sources based in space is an obvious and lucrative strategy for some countries or groups to employ.

All of this suggests that information superiority will be relative. While the United States will retain relative superiority in C4ISR (command, control, communications, computers, intelligence, surveillance, and reconnaissance) systems development and integration, the nature of information technologies and their ubiquity in the commercial market place make any presumptions about assured information superiority unwise. Globally, military forces will rely on highly networked, space-based and ground-based intelligence and reconnaissance systems, but backup systems will be available to protect against successful anti-space operations. Due to the wide availability of commercial sources of space-supported information, by 2025 the United States will no longer enjoy a monopoly in space-based C4ISR. It will, however, maintain a preponderant edge, using its technical systems to produce timely and usable information.<sup>116</sup>

What do these developments portend for the strategic environment of the future? Most essentially, they mean that both conventional and nuclear deterrence will remain a priority in the coming century, but will be harder to achieve than ever before. The predictability of deterrence cannot be assumed based on Cold War experience for several reasons.

First, the convenience of focusing on a single antagonist has been eclipsed, along with the comforting knowledge that deterrence was

essentially a bilateral interaction between two superpowers with shared vulnerabilities and known capabilities. Such conditions no longer exist, nor will they in future. A wide diffusion of actors and destructive capabilities will instead characterize the context of deterrence. Exactly who is being deterred, exactly which value hierarchies and decision systems need to be affected, what relative costs and benefits are at issue, and what behaviors are supposed to be shaped by deterrence, will all be very problematic questions.<sup>117</sup> Rogue irrationality and the potential for misperception or ignorance remain possibilities, as well. In short, Cold War concepts will have to be revised, adapted, or in some cases abandoned in the face of new circumstances.

Of crucial importance, too, the deterrence problem is also likely to be inverted and thrown back at the United States by many actors and in several forms. It is one thing for the United States to deter others by threatening use of nuclear weapons or massive force, and to make such threats not only credible to others but also acceptable to Americans. But it is an entirely different matter to avoid being deterred by threats to use weapons of mass destruction against the United States, against U.S. forces abroad, or against U.S. allies. While the United States will remain superior to all rivals in measurable military capabilities over the next 25 years, there are ways that “bronze” technology in the hands of a potential adversary can blunt “gold” technology in our own hands. If more countries acquire weapons of mass destruction, and the ability to

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<sup>115</sup> U.S. Department of Defense, Joint Chiefs of Staff, *Joint Vision 2010* (Washington, DC: USGPO, 1996).

<sup>116</sup> See Roger C. Molander, Peter A. Wilson, David A. Mussington, and Richard F. Mesic, *Strategic Information Warfare Rising* (Washington, DC: RAND, 1998).

<sup>117</sup> Keith Payne, *Deterrence in the Second Nuclear Age* (Lexington: University of Kentucky Press, 1996).



deliver those weapons in a wide variety of venues, the flexibility and credibility of U.S. regional security policies could be sharply limited *despite* overall U.S. military superiority. This is the problem of *inverted deterrence*.

We should also expect to be both strategically and tactically surprised despite our prowess in the information revolution. History is in many ways little more than a cavalcade of such surprises. As suggested above, no amount of technology will ensure perfect intelligence about the capabilities or intentions of every possible opponent. Generating knowledge and insight from raw data requires the analytical capacity of the human mind, and human intelligence will remain a key component of any first-rate intelligence operation. We should remain humble about the ability to predict events or the reactions of adversaries to our own initiatives. The range of variables is endless, and our potential enemies will be both intelligent and adaptive. They will try to deny or distort any information that we may process into useful intelligence. If history is any measure, specific predictions will never unfold exactly as foretold.

One underlying reason for this is cultural. Strategic surprise is abetted by mirror imaging—viewing future opponents as having similar values or beliefs to one's own when they in fact do not. Some leaders and societies are motivated by values and goals that are different if not antithetical to our own, and their resort to extreme violence—often against civilian populations—will doubtless surprise and shock us in the future as it has in the past. We may not comprehend either the stakes or the commitments that some opponents may make in using such violence. Since conflicts frequently occur from miscalculations borne of ignorance or misperception about opposing views, knowledge of foreign cultures is a necessary component of strategic

intelligence and a bulwark against catastrophic surprise in the future. Antagonists who share our strategic culture and values, who have similar political institutions, and who maintain the same sense of proportionality or rationality about their interests and the means employed to secure them, are not our likeliest adversaries in the future. To assume otherwise, as one strategist has noted, reflects "an a priori detachment from the well-springs of conflict and violence in the modern world."<sup>118</sup>

While new actors and new weapons will change the character of conflict in the next century, the essence of war will remain the same. States, groups within states, and extra-national organizations will still rely on force and the threat of force to pursue a variety of political, economic, and military aims. Asymmetries in both capabilities and objectives will be exploited in the onset, prosecution, and termination of conflict. Since human emotions will still infuse warfare, conflict will not be limited to purely rational goals, nor can we count on rough proportionality between ends and means. Fear, uncertainty, risk, and ambiguity will still characterize conflict despite the advent of unprecedented levels of information technology.<sup>119</sup> That is because, not least, clever and determined adversaries will find new methods of deception and denial to thwart superior U.S. technical capabilities—such as burying communications cables so that U.S. intelligence assets cannot “hear” from space. Ultimately, as in the past, the character and conduct of future conflict will be influenced by *who* is fighting whom, *how*, and over *what*. Surprise will remain a

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<sup>118</sup> Lawrence Freedman, "The Revolution in Strategic Affairs," *Adelphi Papers* 318, 1998, p. 77.

<sup>119</sup> See Barry Watts, *Clausewitzian Friction and Future War*, McNair Paper 52 (Washington, DC: National Defense University, October, 1996).



risk, not because technology will fail us, but because our judgments may not anticipate the full range of strategic contingencies.<sup>120</sup>

Nevertheless, presuming continued investment at roughly today's resource levels, no state will acquire the strategic mobility and expeditionary capabilities that currently provide the United States with global reach and sustained combat power. But U.S. military superiority will continue to rest on the performance of educated and well-trained military forces and appropriate military doctrines as well as modern equipment. While technology is a crucial enabler, it is only one component of military capability.<sup>121</sup> Military power is more than the sum of the various armed services or the size of the defense budget. Continued national support for the military and the preservation of the political will to pursue national interests will remain necessary ingredients of success.

The United States will also retain its traditional advantage in high technology, but the blurring of man, machines, and information systems will accelerate.<sup>122</sup> As has always been the case, having new devices is one thing, and integrating them into the human subculture of the military is another. American commercial successes should also keep the United States the leader in command and intelligence system development, systems integration, and information management.

At the same time, however, America's coalition partners will lag behind American collective achievements in high technology and the integration of advanced computational capabilities into advanced military systems. This will lead to widening gaps in compatibility and interoperability that will affect the ability of allies to operate with the United States in an integrated fashion. In addition to technologically-driven

gaps, potential challenges to alliance relationships could also arise from burden sharing and risk sharing disputes. As always, unequal burdens and risks will make creating coalitions of the willing more difficult.

Nor will the causes of war change in their essence. Men have always fought for reasons that some other men could not understand. That will still be the case. New forms of ideological struggle cannot be ruled out, and neither will religion disappear. Such motivations will generate intense passions and will ensure that tomorrow's conflicts are not fought solely according to American definitions and rules of conflict. War will not be like a video game, and although American forces may face some contingencies with dispassion, we cannot count on our adversaries taking the same attitude.<sup>123</sup>

Clearly, there are new challenges in our future, especially for a U.S. military strategy that has relied on forward-based and forward-deployed forces as a key component of that strategy. The permanent stationing of U.S. forces abroad will become more difficult to sustain. The political cost of such bases within American alliances will likely rise, as will the vulnerability of such forces to attack with bal-

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<sup>120</sup> See "Making Intelligence Smarter: The Future of U.S. Intelligence," Report of an Independent Task Force, Council on Foreign Relations, February 1996.

<sup>121</sup> For eloquent testimony to this point, see Stephen Ambrose, *Citizen Soldiers* (New York: Simon & Schuster, 1997).

<sup>122</sup> But this will not happen automatically, and there are bureaucratic impediments to its progress. See Andrew Krepinevich, "Emerging Threats, Revolutionary Capabilities, and Military Transformation," Testimony before the Senate Armed Services Committee on Emerging Threats and Capabilities, March 5, 1999.

<sup>123</sup> See Robert H. Scales, *Future Conflict* (Carlisle, PA: U.S. Army War College, 1999).

listic missiles, cruise missiles, terrorism, and weapons of mass destruction. The latter circumstance may erode support for such bases from the home front. Taken together, the pressures against the permanent forward basing of U.S. military forces have profound implications for U.S. strategy, power projection capabilities, and alliance relationships.

The future strategic environment will therefore be one of considerable turbulence. Stability may simply not be achievable at small cost—or at any cost—and riding out the storm at anchor is not an option. The international system will be so fluid and complex that even to think intelligently about military issues will mean taking an integrated view of political, social, technological, and economic developments. Only a broad

definition of national security is appropriate to such a circumstance.

In short, we have entered an age in which many of the fundamental assumptions that steered us through the chilly waters of the Cold War require rethinking. In the decade since the fall of the Berlin Wall a start has been made, but a start is not good enough. The very facts of military reality are changing, and that bears serious and concentrated reflection. The reflexive habits of mind and action that were the foundation for U.S. Cold War strategy and force structures may not be appropriate for the coming era. How the United States and other states respond to these changing dynamics will determine the relative peace and security of the next century.

## II: A World Astir

If nothing else, the intellectual investment represented by the preceding section proves that the world is a vast and complicated place about which our knowledge is limited and our powers of forecasting uncertain. But it offers more than that. A composite picture of global dynamics suggests a plausible range of influ-

undertaken below in five sections, is still necessary to capture the shape of the world ahead.

### *Greater Europe*

During the past century, Europe has had a very significant impact on U.S. national security. The United States fought two world wars and sustained a 40-year Cold War with the Soviet Union to prevent Europe from



ences that will affect regions and countries. It suggests, too, that regions will not be as self-contained in 2025 as they are today.

Nevertheless, global dynamics are not wholly determinative, and they are not uniform across the globe. That is why a regional analysis,

being dominated by a power with interests inimical to its own. In so doing, the United States expended enormous financial and military resources and risked its own survival as a state.

Greater Europe—which includes the countries of western Europe, eastern and central Europe, and Russia—will retain lasting importance for U.S. security interests in the next quarter century for an array of reasons.<sup>124</sup> Greater Europe will have a population of approximately 761 million by 2025.<sup>125</sup> An economically integrated European Union would have an economy slightly larger than that of the United States.<sup>126</sup> This region will remain an important center of international trade and finance, a pivot of scientific and technological innovation, a region capable of deploying sophisticated military capabilities, and a significant actor in global politics.

Europe's importance to the United States also rests on cultural factors. Most Americans trace their historical and cultural roots to Europe, and will continue to do so throughout most of the early 21<sup>st</sup> century. More important, America's political institutions and philosophies are essentially European, and the region will remain the largest and strongest community of states sharing the basic democratic values that undergird U.S. political culture. It is also the region of the world most tightly bound to the United States by an unprecedented array of economic, cultural, and political ties.<sup>127</sup>

For all these reasons, Greater Europe's evolution in the 21<sup>st</sup> century and its relationship with the United States will be as important to U.S. national security interests as it has ever been. But there is yet another reason why this region is liable to be important: it could become a major source of trouble—trouble that could take three intersecting forms.

First, the evolution of west European institutions over the next quarter century will likely spark economic competition, diverging political interests, and serious tensions with the United States. This will be so whether the

European Union manages to transform itself into a federal state with a unitary foreign and security policy, or whether a failed effort to do so leads to re-nationalized security policies.<sup>128</sup> Second, Russia's post-communist future could mire Europe in pressing security concerns if that future produces either chaos and disintegration or a reborn authoritarianism prone to imperial ambition. A third source of trouble could come from the states located between western Europe and Russia, where the prospects of economic and political reform vary markedly.

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<sup>124</sup> In this study we use “western Europe,” not “Western Europe,” and the same goes for eastern and central Europe. We have a specific reason for so doing. Capitalization of these terms, which settled into a pattern during early Cold War times, indicated a political/ideological disposition: West meant democratic and East meant Communist. This made sense, for through capitalization English usage gave us the ability to distinguish between the merely geographical and the abstract. Today, obviously, this distinction no longer applies—although we still use the cultural phrase the West, as distinct from the geographical term the west, to indicate the domain of free-market democratic countries whose intellectual origins are to be found in the Renaissance and the Enlightenment.

<sup>125</sup> U.S. Bureau of the Census figures and projections, 1999.

<sup>126</sup> 1996 base GDP figures by country are drawn from 1998 *World Development Indicators* (Washington, DC: The World Bank, 1998), pp. 180-2. For growth rates used to derive 2025 figures, see OECD, *The World in 2020*, p. 92. It is worth noting that these OECD statistics were compiled before the 1997-98 Asia crisis. But at the time of this writing, there is no inclusive post-crisis data set from which to draw.

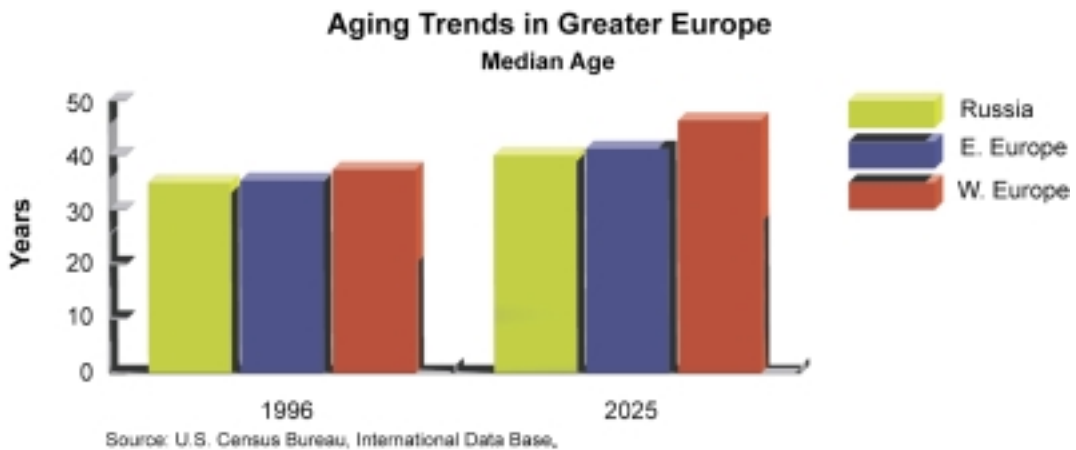
<sup>127</sup> See Paul S. Schroeder, “The New World Order?” *Washington Quarterly*, Spring 1994; and Daniel Deudney and G. John Ikenberry, “The Logic of the West,” *World Policy Journal*, Winter 1994.

<sup>128</sup> See generally Robert Blackwill, ed., *The Future of Transatlantic Relations: Report of an Independent Task Force* (New York: Council on Foreign Relations, February 1999).

In the coming decades, three critical macro-social, economic, and political forces will strongly affect the states of Greater Europe. First will be changing demographic patterns and the resulting need for new social policies.

With the exception of Turkey, no state in Europe today even maintains a population replacement rate, and this trend is unlikely to

over 60 by 2025—and shrink from approximately 148 million in 1995 to approximately 139 million in 2025 largely due to low birth rates and acute health and environmental crises.<sup>130</sup> Russia's aging population will increase pressures for social spending, but problems of unemployment and a non-functional tax collection system will make it hard to raise adequate funds. Worse, Russia's dire economic conditions will probably stymie the



change through 2025. Aging populations strain existing pension provisions as the number of workers paying into the system declines relative to the number of retirees.<sup>129</sup> Fears of politically unsettling migrations from the EU's periphery are likely to yield immigration policies far more restrictive than those in operation today, closing off one available means of countering prevailing demographic trends. It is not even clear that unrestricted immigration within the EU will last 25 years, due in part to different historical and cultural dispositions toward immigration.

East of the European Union, a similar demographic story yields a different set of possible outcomes. Russia's population will both age—25 percent of the population will be

adoption of anything more than stopgap measures across the range of social policy. Moscow's inability to address such problems will add to those social tensions, reducing further the legitimacy of the central government.

In the states of eastern and central Europe, the critical challenge will be two-fold: whether governments can rebuild the social safety nets that were destroyed after the fall of the Berlin

<sup>129</sup> Sheetal K. Chand and Albert Jaeger, *IMF Occasional Paper 147: Aging Populations and Public Pension Schemes* (Washington, DC: International Monetary Fund, 1996), p. 12.

<sup>130</sup> All population figures, here and below, are drawn from the U.S. Census Bureau's International Database.

Wall; and whether societies can maintain their nascent democratic political cultures in the face of episodic economic stress.

Second, economic growth rates will be a major factor in the region's prospects. The achievement of a common EU foreign and security policy, as well as the success of the euro, will require a growth rate at the upper end of the current OECD forecast range—an average of 2.5 percent or better over 25 years.<sup>131</sup> Lower growth rates could limit the European Union to the creation of common economic, fiscal, and monetary policies, and it could possibly doom the euro. These lower growth rates could also place at risk the ability of current members or EU aspirants to attain the economic targets required by the Union—a condition states may be unwilling to resolve through difficult structural adjustments.

For the west Europeans, it will be especially critical whether they find a way to reconcile their deeply embedded views on welfare with the new macroeconomic orthodoxy sweeping the world. The future of the euro may well be at stake. Some believe that the initial fall in the euro's value over the first six months of 1999 was mainly the result of an expectation that U.S. interest rates would rise. Others, however, have seen a structural cause in the relationship between the size of Europe's welfare function and the foreign exchange value of its currency. Expensive welfare states tend to have low growth economies, which leads central bankers to lower interest rates in order to stimulate the economy. That creates trade surpluses, but it also devalues the currency, making efforts to restructure the EU's approach to welfare crucial to the future economic success of the European Union.

Economic growth rates will also have a major impact elsewhere on the continent. The

relationship between improving economic prospects and the institutionalization of democratic governance is to some extent circular. Economic prosperity cannot guarantee political stability—but it helps. So whether in Russia or Romania or Latvia or Poland, good times will make it easier for reformers to gain support for their future visions, and lean times will make it harder. The level of integration between eastern and central Europe, including Russia, with the rest of the world will also play an important role in the area's prospects. If global economic dynamics are essentially healthy, there will be a greater impetus to adopt international best practices, and that will spur positive policies for the region. If international economic dynamism stumbles, such incentives will be weaker and their positive impact smaller.

Third, political leadership will play a vital role in determining the region's future. For the European Union, bold leaders reared mostly in the post-Cold War period could build on their experience with a common European currency and the unimpeded movement of goods and persons across state boundaries to create a common foreign and security policy. Absent such leadership, states in the European Union may be unwilling to yield sovereignty to a supra-national body.

While Russia's political system will probably not achieve a fully institutionalized democracy, strong leadership committed to democratic ideals will be crucial to prevent disastrous backsliding. Such leadership would enable the central government to retain some measure of control over newly empowered regions. It could also help to ensure continued aid and investment from the OECD countries and international financial institutions to what will remain a precarious economic and political

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<sup>131</sup> OECD, *The World in 2020*, p. 92.



system. Without a democratically oriented leadership, Russia may disintegrate, or a strong authoritarian leadership may emerge in its stead.

The danger posed by poor or divided leadership elsewhere in Europe will be a freezing of national futures in limbo between the democratic West and the problematics of Russia. The Czech Republic, Poland, and several other states “in the middle,” so to speak, have deep Western cultural roots, whether through the impact of religion, history, geographical propinquity, or all three. Others, to one extent or another, do not. At the outer edge of the Cold War, all these societies are being pulled toward the West, but not equally or with similar results. The quality of political leadership over the next 25 years will be critical to determining which of these societies find the will and way to change themselves into the states they now wish to be, and which will not. The result will mark a new cultural and political boundary for the future.

What follows is an analysis of a range of plausible alternative futures for Greater Europe. It begins by depicting a region enjoying relative stability and prosperity and assays the conditions conducive to such good fortune. It next turns to less positive alternatives from the U.S. point of view, similarly seeking to isolate likely causal factors.

**I**n one view of the region’s future, the European Union would continue to be at the forefront of many of the positive trends highlighted in the discussion of global dynamics. It will continue to be the prototypical case of a group of states, committed to market-based liberal democracy, that relinquish increasing degrees of sovereignty to achieve greater economic success. That effort, in turn, would result in the EU assuming a more signif-

icant leadership role within the international arena.

If the political integration and economic expansion of the EU go as planned, it could help to institutionalize democratic governance and market economies in at least some neighboring countries to the south and east. As important, it would finally put to rest any lingering fears that the major European countries would ever again go to war with each other. Many believe that it would also create a like-minded and similarly powerful partner for the United States with which to share the burden of global leadership.

By 2025, a mature European Union could be a successful economic, monetary, and trade union, with a common justice and legal structure. It would pursue a common foreign and security policy under the leadership of its Secretary-General of the European Council and High Representative for the Common Foreign and Security Policy. It would assume primary responsibility for Europe’s own security, based on a unified headquarters and staff for an all-European defense force. It would most likely include some twenty states, with new members coming from central and eastern Europe. There is no more than a fifty-fifty chance, however, that Turkey will become a member of the EU during this period.

Uncertain is whether the EU will invite the Baltic States or Ukraine to join, given their proximity and historical ties to Russia. Economically, the Baltic States will probably meet the criteria, but Ukraine probably will not. Russian opposition will be a significant obstacle, especially as the EU accrues serious military-strategic functions. If the EU takes in the Baltic States and Ukraine, it risks a significant further deterioration of its relationship

with Russia. If it does not take them in, it perpetuates a series of unsettled relationships.

Whatever its precise size, a mature European Union would be a global political, economic, and technological force. Annual growth rates averaging over 2.5 percent, and concomitant productivity gains, would drive a successful euro and rival U.S. GDP growth.<sup>132</sup> If this occurs, the euro would become a main reserve currency and unit of international exchange. Unless the euro appreciated too rapidly against the dollar, this would further EU competitiveness in international trade and finance. Such economic success would provide a sound basis for addressing social welfare problems brought on by aging populations.

The EU would be responsible for the defense of its members and capable of responding effectively to regional security threats. It would have developed the ability to conduct multi-divisional peace enforcement, peacekeeping, and humanitarian assistance operations within Europe. Most EU states would have small, professional militaries. Their force structures would be bifurcated between high-readiness forces available for such missions as peacekeeping and larger national defense forces requiring significant reconstitution to be effective. Because of the newness of the European Union's common security policies and stronger military capabilities, its policies would probably have a regional focus aimed to prevent the spilling over of instabilities and chaos on its periphery.

In such a world, NATO's future would be uncertain. It is hard to see how a truly integrated and independent European defense force could coexist with NATO, as it is presently constituted. NATO could remain formally the ultimate guarantor of European security, based on Article 5 of the North Atlantic Treaty. But in this case,

NATO's operational military command structures would gradually disappear. The U.S. military presence would probably diminish sharply, though the United States might still remain engaged in peacetime through periodic deployments. The political entry to Europe that U.S. leadership of NATO provides today would diminish.

Even if the EU were to build a unified and independent military structure, a significant military technology gap would exist between the United States and its European allies. The United States would continue to spend more on defense than its EU associates combined. The establishment of a single, integrated European defense industry could increase European self-sufficiency in defense, but only if the Europeans were prepared to expand their defense spending and procure their arms and equipment almost exclusively from this industry.

Over the period through 2025, Russia is unlikely to achieve a fully institutionalized democracy. The time is not at hand for corruption-free political and economic institutions, investment-fueled economic development, and a foreign policy oriented toward full integration with the democratic world. But Russia could evolve in such a way as to be neither a great democratic success nor a great threat to Europe. That is a condition well described as either status quo-plus or status quo-minus.

While still facing enormous problems, Russia in a condition of status quo-plus would have acquired a post-sclerotic leadership

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<sup>132</sup> The OECD under a high-growth scenario predicts long-term U.S. GDP growth rates to be 2.6 percent per annum. A weighted average of high-growth estimates for current EU members and for the newly admitted states envisioned by this paper yields a GDP growth rate for the European Union of 2.6 percent, as well. See OECD, *The World in 2020*, p. 92.

capable of some political and psychological dynamism. It will also have created a governing political party able to accomplish institutional reform. An active and reasonably popular president, supported by his party in the Duma, would finally be in a position to firmly establish the rule of law, privatize land, and enact tax legislation that could give the government a stable expectation of essential resources. As a result, Russia's increasingly autonomous regions would likely be drawn back toward the center. This is not beyond possibility over a 25-year period, and it could occur far more quickly than that. Even under such conditions, however, Russia could not grow economically at more than 2 percent a year. But at least the malaise so pervasive today would lift, and a new post-Communist generation could begin to inherit social and economic power in an environment dotted with islands of hope and progress.

Why would growth be so slow even if a more propitious political environment were created? Because Russia faces an enormous problem in renewing and diversifying its industrial and commodity base after 70 years of distorted markets and under-investment. It is also likely to continue to suffer chronic unemployment, pervasive corruption, and massive tax evasion even under the best of circumstances. In such an environment, status quo-minus is just as likely as status quo-plus. In this case, Russia's share of global GDP would contract and growth would stall, with occasional periods of severe economic contraction, between now and 2025. This would hamper Russia's ability to attract private foreign investment, causing continued reliance on assistance from international lenders such as the IMF.

In this view of Russia's future, mostly untreated health and environmental problems would grow very serious. The spread of Multi-Drug Resistant Tuberculosis (MDRTB) and

HIV/AIDS would debilitate the work force, lower national morale, and cost large sums of scarce capital to control, if not resolve. Health risks owing to environmental conditions will grow. Thousands of former biological, chemical, and nuclear weapons sites will exist, but little money will be available for remediation. Chemicals and toxins in the soil and water left over from industrial processes now abandoned will have direct and possibly serious effects on the health of Russians as well as many north and east Europeans.

The result of the combination of economic, health, and environmental trends could be an increase in Russia's existing political and social strains. In some regions, such strains could spark backlashes against the country's formal but largely dysfunctional experiment in democracy.

Given Russia's importance to Europe, the major European countries as well as the United States are likely to persevere in their efforts to help Russia develop institutionalized democracy, a more robust civil society, and a more effective economy. But even extensive external aid is likely to achieve little more than a rough preservation of the status quo—whether plus or minus—and it could end up holding off just enough pain in Russia to delay real reform.

Under most any circumstance, the Russian government's control of its national borders will be problematic. Central authority could well be limited to matters of national defense policy, monetary policy, and the coordination of inter-regional transportation and communications. Political violence within Russia and along its periphery will likely attract and subsequently coexist with widespread, highly entrepreneurial criminal syndicates that may develop strong economic and political ties to regional and local elites. These dynamics, in

combination with the lack of financial resources available to maintain the quality and professionalism of its military and nuclear forces, will cause continuing concern within Europe and the United States. “Loose nukes” and “loose bugs” are obvious problems, but so is the lack of effective oversight for the many still functioning Chernobyl-design nuclear energy plants.

Some of Russia’s regions could become political power centers in their own right, performing most vital public functions. In the event that Moscow cannot exert effective control over its own federation, regional elites will play a major role in the selection of military commanders and their staffs. Regional leaders would most likely develop their own foreign policies as well, seeking closer ties to wealthier neighboring powers and other potential allies. The Far East regions may gravitate toward Korea and Japan, and those in Central Asia (such as Tatarstan) may move closer to their Muslim neighbors, particularly Turkey, Iran, Pakistan, and Uzbekistan. The regions closest to Europe would most likely seek closer ties to the European Union and to Germany in particular, but also with the Baltic states, Ukraine, and other Slavic states (Bulgaria, and even Belarus) that may be doing better than Russia. The question of Russia’s stability and national cohesion will have a major impact on the security calculus of all the states on Russia’s periphery. Russia will have become the “sick man” of early 21<sup>st</sup> century Eurasia—sick enough to worry everyone, but neither so deathly ill nor so imperially healthy as to pose the kind of threat to the rest of Europe that could decisively throw it off track.

**I**n this view of Greater Europe’s future, most of the states between the European Union and Russia would improve economically and politically—in absolute terms—from

where they are today. The OECD expects an average economic growth rate over this period of 4.9 percent.<sup>133</sup> Such growth, if it occurs, will likely be facilitated by continued investment by EU countries, the United States, and other global economic players who will continue to view the future of a market of about 194 million people as an important investment priority. Free from Communism only about five years, their combined GDP in 1996 amounted to about \$423 billion—around 2 percent of the global share.<sup>134</sup> In the coming 25 years, this region will very likely increase its global standing in GDP and other economic terms.

Politically, most of central and eastern Europe will benefit from the positive trends of deepening democracy and expanded international commerce, even if many states do not achieve full global competitiveness. Many, if not most, central and eastern European states will have mature democratic systems by 2025. There will be regular fair elections, the institutionalization of the rule of law, democratic and civilian control over military institutions, respect for civil liberties, and a willingness to pursue peaceful solutions to territorial disputes and irredentist claims. Even if some are not full members, most of these states will be linked politically with both the European Union and NATO.

At the same time, the situation in the Balkans will remain tenuous even in the rosiest of futures. Only Slovenia and Greece have a good chance to escape economic stagnation and political instability, because they are relatively stable democracies and have enough highly educated people to succeed in

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<sup>133</sup> OECD, *The World in 2020*, p. 92.

<sup>134</sup> *World Development Indicators* (Washington, DC: The World Bank, 1998), pp. 180-2.

an age of economic integration.<sup>135</sup> Bulgaria, Romania, Serbia, and Croatia face greater challenges but may still succeed. But elsewhere, Balkan countries will continue to experience economic dislocations and more than occasional bad government, complete with corruption, manipulation of state finances, suppression of the media, and a lack of elite concern for pressing national problems.

No enduring settlements to the conflicts in Bosnia or Kosovo are likely to emerge from the U.S. and NATO-brokered agreements that ended the wars there. As a result, ethnic tensions and the security fears that go with them will remain, regularly threatening to erupt into outright conflict. Moreover, with Bosnia and Kosovo stuck in a state of suspended political animation, problems in Macedonia, Montenegro, and Albania will become more likely. As a result, it is highly improbable that any of these countries will be integrated into western Europe's political and economic institutions within the next quarter century.

**A** more dour future for Greater Europe is also possible. It would turn on three basic elements of potential bad fortune. The first is that the European Union collapses, leading to the rise of re-nationalized economic and possibly security policies. The second is that the Russian state disintegrates altogether or acquires a revanchist authoritarian leadership. The third is that the lands between the EU and Russia fall into a pattern of economic failure, governmental ennui, internal violence, and cross-border wars sufficient to generate a steady stream of strategic and humanitarian crises for most of the next 25 years. Any one of these developments could encourage the other two.

A collapse of the European Union could result from a failure to sustain annual economic

growth at rates of at least 2 percent. Such slow growth could arise from a loss of confidence, growing disillusionment among political leaders and their citizens, and likely popular resistance to further funding any joint policies. A collapse could occur, as well, as a result of shifts in leadership with a concurrent reluctance to yield national sovereignty over critical political and economic policies. The unwillingness of a population to endure the pain of meeting economic targets, or of undertaking structural changes to address failures in the social safety net, might also serve as occasion for leadership changes.

Another possibility is the specter that a coalescing governmental authority at the EU level might be essentially undemocratic. Currently, the European parliament does not have binding authority over national member governments, but the EU bureaucracy in Brussels does in selected policy areas. Already the creation of a European central bank and currency has greatly diminished the power of national legislatures to affect crucial pocketbook issues such as interest rates and money supply, which in turn diminishes the significance of citizens' votes for those legislatures. Unless EU political institutions manage to keep pace with economic and security ones, a significant popular and elite backlash against integration could ensue, especially in times of economic adversity.

More than that could go wrong, as well, in the form of external pressures on young EU institutions. Conflict in North Africa could result in the movement of large numbers of migrants to southern Europe and points north, upsetting political equilibria and fracturing common immigration and social policies. A significant security threat from Europe's periphery, from

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<sup>135</sup> We use the term Balkans here in a strictly geographical sense.



Russia or the Balkans, might empower a strong preference for NATO—which is to say, American—leadership, and sharply diminish interest in pan-European solutions and institutions.

Regardless of the precipitating events, the implications of lost European confidence in the inevitability of a federated Europe would be significant. Outside Europe, the euro would lose value as demand waned for holding European assets. Lower growth rates and a weaker euro would limit domestic consumption, while higher interest rates would dampen investment. In the face of this loss of confidence and resulting economic effects, and with no alternative plan in place, the EU could begin to unravel. Germany would probably reassert its national interests politically, economically, and possibly even militarily both within and outside Europe. France might move sharply to the right as it finds that it can no longer use international processes and institutions to limit Germany's return to independent major power status. The far right would probably prosper more generally, too, in countries such as Spain, Portugal, Italy, and Austria. Additionally, the United Kingdom might attempt to separate itself from Europe and focus instead on its special relationship with North America and the wider English-speaking Commonwealth.

If any of these events occurred singly or in combination, competition among European states would most likely become the norm, with significant undertones of national chauvinism and regional and global economic protectionism. Elements of the re-nationalization of European defense would soon emerge, if not on the scale of the pre-World War II period, then much more vigorously than in the post-World War II period.

While such a situation might increase the importance of the U.S. dollar, of NATO, and of the U.S. role in Europe, many negative consequences would flow as well. The collapse of the euro could send major shocks through the international financial system. A failure of the European Union would also send a signal, and at worst deal a mortal blow, to other more nascent regional organizations trying to achieve free trade and other common arrangements. The United States might be forced to undertake much of NATO's financial burden. Tensions between a Europe perceived to be shirking its financial responsibilities and a United States being asked to contribute more to European defense would strain the trans-Atlantic link despite a U.S. willingness to pay and do more. Alliance coherence would be harder to maintain during the transition period as old national biases and animosities resurfaced.

The second concern at the more dour end of our continuum is two-fold: either the collapse of the Russian state or the rise of a new authoritarianism. Both could be disastrous, albeit in different ways.

Russia's disintegration would have serious consequences. Unemployment in Russia would reach severe levels. Corruption and inadequate tax collection efforts would leave insufficient funds for even basic social services. Economic growth would plummet to negative rates over sustained periods. The magnitude of its social and economic problems would probably be so great, and the decentralized power of the regions so comparatively strong, that Russia's central government might essentially disappear. Regional and ethnic tensions, compounded by sharp economic disparities, would fuel eruptions of conflict and the mass migration of civilians fleeing instability and violence. Military forces, including tactical nuclear weapons, might come under the control of local



military commanders and political warlords. The last Russian civil war and collapse, from 1917 to 1921, was horrible. A future one might be even worse, and not just for Russians.

A significant Eurasian power vacuum would flow from a Russian collapse, encouraging states with ties to various Russian regions, such as Iran, Turkey, and Japan, to seek means of furthering their own interests in the face of Russian weakness. Faced with Russian disintegration and the unlikely possibility of restoring Russian central authority, the European Union and NATO might draw the Baltic States and Ukraine into their organizations, in effect redividing Europe in order to prevent the spillover of Russian instability into other areas of Europe. Diplomatically and economically, the United States and other countries would have to negotiate with multiple entities and factions with claims to statehood, and deal simultaneously with massive economic dislocations. Finally, the dangers associated with wildly diffused control over nuclear weapons, fissile materials, and biological agents would present a security crisis of the first order.

The resurrection of an imperial Russia, on the other hand, however much it strains the imagination to credit the possibility, would pose other dangers. It would feature centralized controls and a new leadership that would tap into rekindled nationalist sentiments and nostalgia for Russia's great power prerogatives. Political structures and the creation of economic dynamics designed to provide for basic human and social needs would be governmental priorities, but at the expense of democratic values.

Authoritarian control in Russia could result in greater internal stability, if it were to succeed in maintaining near full-employment and in providing essential welfare needs. It might be

able to crack down successfully on corruption and organized crime. But this is not clear. Such a regime might be such an international pariah that it could not successfully connect to the international economy, making its economic prospects dire. If the government were not able to solve the unemployment problem or ensure domestic security, it is hard to see how any such "solution" could produce stability. Such a "solution" would also be likely to generate separatist movements in non-Slavic areas of the Russian Federation, particularly in the Caucasus.

This would be particularly true given that a post-"democratic" Russia would probably be resentful of those who tried to help the Yeltsin regime. In such a scenario, the already widespread belief that Western aid was part of a plot to keep Russia weak and to invade its geographical spheres of traditional influence would likely become accepted truth. Not only would such a Russia be a nuclear power, it might also elect to emphasize military spending as a means to national industrial regeneration. After all, what remains of the old Soviet military-industrial complex is today virtually the only Russian economic sector still breathing, if barely so. It would be a natural focus of investment and political patronage for a new, and nationalistic, authoritarian Russian regime.

While such a regime could not credibly threaten Europe as a whole with conventional military force, it could nevertheless pose obvious new threats to Russia's closest neighbors. Russia could turn Peronist, or it could turn fascist, and the difference in the implications for the world at large is not trivial. A weak corporatist regime would be unlikely to do very much harm outside Russia's borders, but a form of Russian national socialism, emboldened by a revived form of pan-Slavism, could do enormous harm over all of Eurasia and beyond.

In either event, Russia would cast a significant political shadow over the region in a way that it does not do now, and in a way that neither muddling along or disintegration would produce. An authoritarian Russia could pose an effective challenge to the West and act to reinforce its image as a power whose geostrategic interests and calculations must be taken into consideration. If this future develops, the United States will have lost its investment in fostering liberal democracy and in creating the economic preconditions of a free-market system in Russia. The apparently conclusive failure of democracy in Russia might even trigger a reconsideration of the presumed universality of core American principles and beliefs—with unknown consequences for our own future.

Finally, the third misfortune that might plague Europe in the 21<sup>st</sup> century concerns those very diverse lands in between the European Union and Russia. The Balkans have furnished a nearly non-stop political and humanitarian crisis since the early 1990s, and things might get even worse despite the EU's redoubled determination to funnel major amounts of aid to the region. Albania, Macedonia, Montenegro, Bosnia, and Serbia are ripe for further violence and chaos. Belarus, Moldova, and especially Ukraine are new states with unproven track records and many problems. Romania has made only sporadic progress despite the end of the Ceaucescu regime, and both Slovakia and Bulgaria have struggled hard to get even a little ahead of where they were in 1989. Ethnic and border questions aplenty remain unresolved, and the quality of future leadership is unknown.

If the global economy falters, all of these countries would be hit hard. If NATO acquires a reluctance to intervene in such domains after the experiences of Bosnia and Kosovo, the potential for on-going violence and cross border wars can

only rise. Obviously, too, the specter of re-nationalized security policies in western Europe seeking agents and allies to the east—repeating the patterns of the interwar years—will not make things any easier. Nor will a Russia in the throes of collapse, exporting refugees, criminals, drugs, and weapons westward.

Amid the various possibilities sketched out above, the most dramatic changes are probably the least likely. The EU will neither collapse nor achieve a fully unified foreign and security policy. Habit and hope will prevent the former, while British reluctance, differences of interest, and an unwillingness to buy the military assets necessary to undergird such a policy will brake the latter. Hence, a rebalanced NATO is likely to remain the premier institution of Atlantic relations and the main instrument of U.S. power in Europe. The political and economic profile of the EU is likely to rise, however, and insofar as there are differences in U.S. and European perspectives, it will make the political management of trans-Atlantic relations a more challenging task.<sup>136</sup> Similarly, in all likelihood, Russia will muddle through. In central and eastern Europe, what is today a very mixed picture will likely change in its particulars, but remain mixed in its overall circumstances.

American policies will clearly be important to Greater Europe over the next quarter century. Keeping the trans-Atlantic link alive even as Europe bears more responsibility for its own security will require tact and forbearance on all sides. It will be worth a major effort, for Greater Europe will remain very important to the United States. U.S. political leadership through NATO has been a vehicle to organize the continent's overall security and to mollify jeal-

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<sup>136</sup> See Peter W. Rodman, *Drifting Apart? Trends in U.S.-*

*European Relations* (Washington, DC: The Nixon Center, 1999).

ousies and historical fears among the European members. American military forces in Europe have been instrumental to these purposes. Determining the extent and nature of the U.S. military presence in Europe will therefore be one of the key issues for the United States and its allies over the next 25 years. The general tenor of the U.S.-EU relationship will determine whether this and other critical alliance issues are managed in a relatively cooperative or a more adversarial manner.

U.S.-European cooperation will also be crucial in the case of Russia, which will depend upon the continued willingness of international institutions to provide financial and other kinds of assistance. Without it, the potential for economic collapse will loom larger and make the emergence of an undemocratic future more likely. On the other hand, overly vigorous U.S. involvement in the management of Russia's problems may risk provoking a backlash. A careful balance will be critical.

American policy will also be critical to the future of the countries of eastern and central Europe. If the United States remains economically engaged, it could help offset the in-between status that these states are liable to have with the EU for many years ahead. And if the United States remains culturally and politically engaged, it will continue to buttress the evolving democratic political cultures in many of these countries. The American example, as well as that of the EU states, is crucial to their evolution as democracies. It is all the more important, then, that U.S. policy deal with states in their own right, rather than cast them as strategic adjuncts of Russia to the one side and its NATO partners to the other.

**T**he range of futures for Greater Europe is wide indeed, but even the most positive view that one could reasonably take of the future

is far from ideal. Russia will not be robustly democratic and prosperous, a unified European Union will present challenges as well as opportunities, and eastern and central Europe will compose a patchwork of successes and failures. The alternatives, on the other hand, provide warning as to how bad things could get—and this is in the part of the world that most closely shares U.S. values and civilization, and that is as advanced economically and politically as any other continent. It is a sobering visage.

### *East Asia*

**E**ast Asia—here defined as including Northeast Asia, Southeast Asia, Australasia, and all their oceanic appendages—contains not only upwards of a third of the world's population, but also what is widely taken to be the most likely future politico-military near-peer competitor for the United States (China), two of its most critical allies (Japan and South Korea), and one of its most intractable problems (North Korea). The region's importance to the United States will grow between now and 2025, whether due to its successes and strengths, or to the problems it could generate from weakness and strife. Asia, and particularly Northeast Asia, is the region of the world most likely to witness a major war. It is the only region in which significant territorial disputes among major powers exist, in which the use of military force would alter the regional balance, and in which an alteration of the regional balance would invariably affect the world as a whole.

Recent trends suggest that East Asia embodies vast potential for economic growth, peaceful development, and scientific as well as cultural achievement in the decades ahead. In the last quarter of the 20<sup>th</sup> century we have witnessed a stunning, if lately stunted, economic performance there. With it has come significant social change, much of it tumultuous but most of

it positive. There have been notable improvements in education and basic health care, as well as more equal opportunity for citizens of most nations irrespective of gender or ethnic origin. We have also seen the transformation of some of the region's erstwhile dictatorships into fledgling democracies, and, not least, East Asia has managed to avoid major interstate violence.<sup>137</sup>

West. This is a major datum, for aside from a few isolated examples (Turkey, Japan, Finland, Israel), no cultural area as vast as East Asia has heretofore replicated the sharp growth of living standards occasioned by the Industrial Revolution. The last four decades of East Asian history prove that economic modernity comes in more than one cultural form.



In short, we have witnessed strikingly successful modernization over most of a vast region, and we have seen it take place mainly on its own cultural terms—while influenced by those of the

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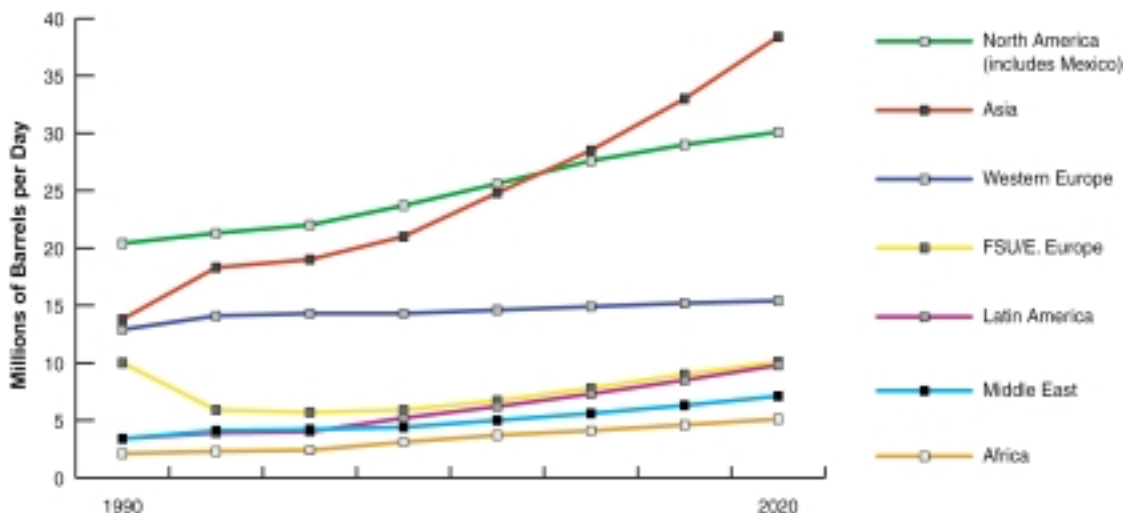
<sup>137</sup> The Vietnamese invasion and occupation of Cambodia (1979-89), and the Sino-Vietnamese border war of 1979 are the partial and somewhat peculiar exceptions.

These accomplishments represent only a foretaste of the harvest of prosperity and intellectual and cultural achievements that could arise in East Asia by 2025. By then the region may well be the largest and most powerful economic grouping in the world.<sup>138</sup> East Asian economies may grow at an annual average of about 6 percent over the next two decades, more rapidly than any other area.<sup>139</sup> If so, the region's share of global GDP could increase to slightly less

America by 2020. Almost half the world's increment in energy consumption will come from developing Asia.

No doubt, the proven facility of East Asian peoples to adapt and develop science-driven technologies will lie at the heart of the region's economic dynamism—if it comes to pass. If the information revolution continues its long march through the economic institutions of the world,

### **Increased Demand for Oil in Asia Will Outpace World**



Source: *International Energy Outlook 1996*, Washington, DOE, EIA-0484(96), May 1996, p. 92, and *International Energy Outlook 1997*, April 1997, DOE/EIA-484(97), Reference Case, p. 119.

than one-third, with Europe, the next largest regional economy, accounting for about one-fifth. Significant Asian trade and investment among the countries in the region as well as with the United States, Europe, the Near East, and Latin America would be assured. East Asia is also likely to be the largest source of capital for international markets.

At the same time, energy consumption in developing Asia will surpass that of North

<sup>138</sup> Population expansion will in part drive the absolute size of East Asian economies. The populations of the five largest states in the region in 2025 will have changed from 1999 roughly as follows: China from 1.2 to 1.4 billion; Indonesia from 213 to 288 million; Japan from 126 down to about 120 million; the Philippines from roughly 80 to 121 million; and Vietnam from 76 to about 104 million people. East Asia's population as a whole in 2025 will be 4.84 times the size of that of North America, and 6.56 times the size of the European Union's.

<sup>139</sup> OECD, *The World in 2020*, p. 92.



and if an essentially liberal global economic order is maintained, then it is clear that extremely lucrative cutting-edge technology of virtually every kind will be available in East Asia. Japan is likely to be a leading global innovator and manufacturer of technologies such as micro-electromechanical systems (MEMS), artificial intelligence (AI), robotics, and computers. Japan's commercial space industry will provide launch capability to many states and private licensees worldwide. Korea and Taiwan will continue to produce world-class communications and information technology, in some cases challenging U.S. and Japanese technological superiority and marketing success.

Australia, New Zealand, Singapore, the Philippines, Thailand, Vietnam, Indonesia, and Malaysia may also play major secondary roles in the region's technology-driven growth by providing a mix of raw materials, human capital, financial services, affordable labor, and major expanding local markets. Rural areas as well as the cities and major towns of the region will be even more deeply linked electronically than they are today, providing an important economic multiplier effect. As these economies grow, they will be able to afford infrastructures that provide wide access to regional and global communication grids and media resources. As a result, expectations regarding quality of life are liable to rise steadily. First in cities and later in rural areas, people will aspire to better public services, education, environmental quality, crime control, medical care, and job-training. In addition, greater access to media and information will whet appetites for political news and participation. In short, new and expanding middle classes will want what such classes always want: economic stability and a piece of the political action.

Greater information linkages within the region will also encourage labor migrations

from less developed and urbanized countries of the region to more rapidly developing ones.<sup>140</sup> Such labor migrations could also boost the educational levels of the migrants, allowing them in turn to raise the labor and educational standards of their home countries.

Barring major political upheaval and economic collapse, China will compete with U.S. firms in space launches, and have several world-class high-technology firms engaging in a wide range of corporate partnerships worldwide. China will also most likely be well-linked into the global communications grid, and will be in a position to use surveillance, communications, and positioning technologies for commercial and military applications. Also, under almost any imaginable political regime, China is likely to pursue biotechnology for commercial, medical, and military purposes.

Along with economic and technological dynamism, East Asia over the next 25 years could become a zone of relatively peaceful relations, characterized by predominately democratic governments well connected to a range of global economic and political institutions. The Association of Southeast Asian

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<sup>140</sup> By 2025 more than half of the region's population will live in cities, up from 35 percent in 1999. The graying of East Asian populations is a major phenomenon to be coped with in the next 25 years. Between 1995 and 2025, the numbers of 15-64 year olds per person 65 years and older will have fallen as follows: China, from 11 to 6; Japan, from 5 to 2; Indonesia, from 14 to 8; South Korea, from 12 to 4; North Korea, from 14 to 6; Australia/New Zealand, from 6 to 4; Malaysia, from 14 to 8; and the Philippines, from 17 to 10. For more detail and some likely social implications, see Nick Eberstadt, "Asia Tomorrow, Gray and Male," *The National Interest*, No. 53 (Fall 1998), pp. 56-65. On Japan specifically, see Milton Ezrati, *Kawari: How Japan's Economic and Cultural Transformation Will Alter the Balance of Power Among Nations* (Reading, MA: Perseus Books, 1999).



Nations (ASEAN), the ASEAN Regional Forum (ARF), and the Asia-Pacific Economic Cooperation (APEC) forum will have matured and expanded their functions. Multilateral institutions could arise to address new transnational issues. It is possible, too, that East Asia will at least begin to develop security and arms control arrangements comparable to those in Europe.

Problems and tensions will persist. The mutual suspicions bequeathed by some hard history will not disappear. Not every state will be a democracy, and very destructive weapons will be available to ambitious leaders without their countries having to first establish a large or sophisticated industrial and scientific infrastructure. Economic competition could get nasty between similarly endowed nations. Vested political leaderships with a lot to lose from rapid change could fail occasionally to rise to enlightened levels, and the social stresses of modernization could still overwhelm some of them even if they are enlightened.

But there is a good prospect that, with so much more to lose, governments in the region will find ways to bound their difficulties short of war and beggar-thy-neighbor economic policies—as has been the case in western Europe for the past half century. Presumably, too, such an evolution in East Asia would be encouraged by timely help from the United States and other major global players with an interest in the region's peace and prosperity—again, just as Europe's postwar success is partly explained by U.S. policy during the Cold War.

Finally in this view of East Asia's future, a growth in living standards, higher educational levels supporting a technologically driven economy, and the relative openness of governments required to sustain an entrepreneurially-minded business culture, would all

conduce to positive changes in the social attitudes of younger generations. This does not imply that economic modernization points to one set and one set only of attitudinal patterns—i.e., Western ones. But many traditional East Asian attitudes—the emphasis on community and extended family as opposed to the individual; toward social hierarchies expressed through traditional occupational, age, and gender roles; toward educational institutions; toward paternalist social authority vested in government—would probably change. Thus, East Asian cultures could come to accept, on indigenous cultural terms, values more harmonious with representative democracy and greater personal liberty than has heretofore been the case.

If East Asia develops in such a fashion, or something like it, nearly everyone in the region and beyond it will be better off, and U.S. national security concerns with East Asia will probably be modest. But there is no guarantee that it will develop so benignly. Plenty of things could go wrong, and some of them probably will.

An optimistic appraisal of East Asia's future is predicated in large part on an assumption: that the rising tide of economic development, buoyed by both a dynamism infused by major technological innovations and a more integrated international economy, will bring benign political and social developments in its wake. There are plenty of examples in human history, however, of parochial political interests—if not sheer irrationality, ideological rigidity, and myopic leadership—foiling such scenarios. After all, if enabling global economic patterns and a skilled population with an affinity for science and technology were all that really mattered, then it would be impossible to explain the Japanese economic doldrums of the past eight years. Sclerotic in-

stitutions and poor executive decisions clearly matter.

So what could go wrong for East Asia over the next quarter century? Three things come to mind: economic meltdown, major upheaval in China, and a serious spiraling downward of geopolitical stability among China, Japan, and Korea. Let us take them in turn.

A large-scale Asian or global recession could occur, leading to widespread unemployment, social instability, increasing nationalism and protectionism, and heightened political repression in several East Asian countries. To see how the latter could occur, all one need do is examine the case of Indonesia. As Indonesia's economy began its free fall in late 1997, the wheels were set in spin for the fall of its government, murderous attacks on its ethnic Chinese minority, and the rise or reanimation of several secessionist movements.

In contemplating the social and political volatility that could issue from an economic downturn in East Asia, one must start not from theoretical speculations but from the actual situation extant today. Despite recent signs of recovery, large parts of the region remain in disastrous shape following the financial crisis of 1997, with falling incomes and sharply rising poverty levels. Meanwhile, the rapid social change and attendant dislocations caused by earlier bouts of globalization, urbanization, and rising educational and economic expectations continue to flow through the affected societies. Seen against the dashed hopes of recent years, another cycle of boom and bust could touch off significant violence and a sharp backlash against enemies of the region, perceived or real, between now and 2025. That, in turn, would amount to a huge waste of human potential. Lives preoccupied by fearful, embattled conditions rather than engaged in scientific,

commercial, and cultural pursuits would translate at the least into fewer gains from trade, fewer investment opportunities, and fewer East Asian children nurtured to contribute positively to global knowledge and culture.

Widespread East Asian economic trouble could also lead to virulent anti-Americanism. A backlash against the United States could be based on claims of U.S. insensitivity to East Asian suffering or to U.S. "cultural imperialism," particularly as expressed through U.S. influence over International Monetary Fund (IMF) and World Bank policies. U.S. public opinion, in turn, could move increasingly against liberalized trade in view of mounting U.S. trade deficits and losses of American jobs, as East Asians once again try to export their way out of their economic problems. U.S. protectionism would worsen any regional or incipient global economic recession many times over, leading to a vicious downward spiral.<sup>141</sup> Protectionist sentiments, were they to be deep and long lasting enough, could also encourage isolationist impulses, and lead the United States to disengage from East Asia.

How likely is that possibility? An answer may start from the simple observation that the Asian economic crisis that began in July 1997 is still under the analytical knife. Some argue that structural defects in East Asian economies caused the crash, and that once bloated to a sufficient level, the bubble economies of the region inevitably had to burst. Others argue that the herd instincts and poor risk management of Western speculators and financiers were principally to blame. And still others believe that the international economic policies of the U.S. government were insufficiently attentive to the limits of East Asian institutions, and that IMF

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<sup>141</sup> See Peter Schwartz and Peter Leyden, "The Long Boom: A History of the Future, 1980-2020," *Wired*, July 1997.

policies made things worse than they otherwise would have been. Depending on which explanation one accepts, divergent explanations for why some countries were not hit as hard as others, and why some have recovered faster than others, follow in turn. Proposals over how to regulate international financial exchanges and reform the IMF also invariably raise contentious debate, all of which shows that there is no consensus about what went wrong or how to prevent it from happening again. Since the urgency of reform has waned as many countries have managed to set themselves aright, even without fixing most of their structural flaws, it could very well happen again.

**B**ut of all the potential problems that could throw East Asia for a proverbial loop, none is as portentous or controversial as the future of China. China is so huge, even relative to its Japanese and Korean neighbors, that it is bound to affect East Asia's future. If Chinese authoritarianism decompresses as per capita income reaches around \$7,000, (as several observers have predicted), and the political system moves toward bounded pluralism even if not genuine democracy, optimism about East Asia's future would receive a major boost.<sup>142</sup> If China undergoes major political reform after the terminal but essentially peaceful crisis of the communist system, leading to the creation of a parliamentary system no less democratic than that in Taiwan, then so much the better still.

Under either scenario, with its state-owned enterprises and its banking system successfully, if painfully, reformed, China's GDP could be the largest in the world in absolute terms in 2025.<sup>143</sup> China's share of global GDP could shoot up from about 8 percent in the late 1990s to about 14 percent. China would also be a major source of international financial liquidity. With dependencies and economic interests around the

globe, China would conduct itself as a major world power, with active policies outside of Asia.

Such a China would not necessarily have irreconcilable conflicts of interest with the United States or other major powers. Presumably, even a China energized by broad, rekindled nationalist sentiment would be constrained by its many crucial linkages with international economic and political institutions. China will require an enormous amount of energy, more than twice what it consumed in the late 1990s when it burned one of every three tons of coal worldwide. Even with better-developed hydroelectric, coal, and domestic oil resources as principal sources, China's requirements for imported oil will rise from a projected 1.4 million barrels a day in 2000 to 5.2 million barrels a day by 2020.<sup>144</sup> The parade of supertankers streaming to Chinese ports would be vulnerable to interdiction in a crisis. China would share with other major oil importers in East Asia, such as Japan, a strong interest in keeping oil flowing from key sources and keeping strategic sea-lanes open. Beijing might also foster positive economic, political, and security relationships with key oil producers around the globe, especially in Central Asia, Russia, and the Near East. That may lead China to fashion policies toward these regions similar to those of the west European countries; namely, a policy aimed at appeasing major regional actors in search of preferred commercial status.

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<sup>142</sup> For example, Minxin Pei, "Is China Democratizing?"

*Foreign Affairs*, Jan./Feb. 1998, and Henry Rowen, "China: A Short March to Democracy?" *The National Interest*, No. 45 (Fall 1996).

<sup>143</sup> See note 53 for references and detail.

<sup>144</sup> *International Energy Outlook 1999* (Washington, DC: Energy Information Administration, 1999), Tables A4, D1.

Still, historically, rising economic powers have often caused the most trouble politically, and nations sometimes put national pride and place before objective material goals. Even a relatively liberal China will require American vigilance. Should China spend most of the next two and a half decades focusing on economic development rather than military modernization, it will still be a major regional military power by 2025. It will possess a strategic nuclear arsenal, a robust theater missile capability, and regional power projection capabilities in the form of a limited blue water navy and an enhanced air force. As a result, China will be a natural focus of security concern for all states in the region as well as for the United States. In consequence, relative economic prosperity would enable other states in the region, including Indonesia, the Philippines, Vietnam, and perhaps even Japan to increase spending on conventional weapons so as to expand their regional power projection capabilities as a hedge against China.

In such a circumstance, a liberalized, if still not fully democratic China, would enjoy a mixed relationship with the United States, one not radically different from that of the past decade. Sino-U.S. ties would feature some cooperative bilateral agreements, including most likely confidence-building measures in the security arena, arms control agreements, trade and investment, and scientific and cultural exchanges. At the same time, the relationship would be characterized by vigorous competition and periodic episodes of significant mutual suspicion over issues such as managed trade, intellectual property rights, arms sales policies, industrial and security-related espionage, and human rights. Chinese regional power, as it applies to the Spratly Islands and the South China Sea more generally, or to Taiwan, or to China's geostrategic competition with India, will also be part of the broader picture.

So will China's relationship with Russia. Should Russia develop a form of nationalist authoritarianism as it picks itself up from its present state of political lethargy and economic decay, China may resume a strategic entente with the United States. The logic of doing so would be a variant on that which defined the Sino-American relationship between 1972 and 1989. Especially under circumstances in which China was drawing heavily on U.S., European, and Japanese resources and institutions to tackle its internal problems, Beijing might assume a generally benign leadership role in East Asian security affairs and in the United Nations. In other words, China could become an incipient great power with a moderately or fundamentally more liberal political order.

**B**ut there are at least two other possibilities for China's future, and they are far less positive from a U.S. perspective.

One is that China continues to get rich, but Chinese authoritarianism remains. For rising income levels to translate into political pluralism, an intervening process must occur: the creation of a middle class ready and willing to articulate its interests. For a variety of reasons, this might not happen in China.<sup>145</sup> The country could instead metastasize from what was a communist command economy into a looser corporatist system, bound together by a network of interwoven political, military, and economic elites, and sustained at large by appeals to nationalism. Such a polity, founded on the greed of the elite, the will to power, and the manipulation of the masses, would not endear itself to the leadership of other major economic powers. Nor could it expect particularly close and sustained linkages to the

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<sup>145</sup> See David Zweig, "Undemocratic Capitalism: China and the Limits of Economism," *The National Interest*, No. 56 (Summer 1999).

growing international economy. Should it fail to deliver the goods economically, such a regime could all the more easily end up falling into aggressive regional policies, as have past corporatist and especially fascist and neo-fascist states.

Such a new nationalist China could become decidedly hostile to the United States, and that hostility could be reciprocated. Several triggers for such hostility exist even today, and they will not go away soon. One is a crisis over Taiwan in which the United States strongly sides with Taipei, a crisis made much more likely by Taiwan's renouncing of its "one China" policy in July 1999. A second is a Chinese movement to seize the Spratly or the Diaoyu islands, accompanied by clashes against Filipino, Vietnamese, or Japanese forces. A third is an aggressive Chinese military armament program. A fourth is domestic turmoil that Chinese political impresarios rush to blame on the United States. A fifth is the bloody repression of political reformers or ethnic minorities. And another is a spate of U.S. policies that make small irritants worse instead of major problems better.

In this degenerative case, the United States would probably seek to balance a hostile China by strengthening bilateral security agreements with regional states and seeking additional basing facilities in the area. The United States might also sharply limit private sector trade, investment, and transfers of technology to China, as well as place sharp limits on U.S. travel to China and on the numbers of Chinese nationals studying in the United States. Whether U.S. allies in or outside of Asia would support such actions is uncertain, absent a major Chinese provocation. For this reason alone, and also because there would be only a limited communist ideological component to Sino-American hostility, it would be misleading to analogize such a situation as a "new Cold War" or a new form of "containment."

Another possibility is that China collapses politically and violence erupts. Elements of a potential collapse are not hard to find. They include all of the following: the loss of ideological legitimacy on the part of the Communist Party, massive corruption among the political and economic elites, the pressure of separatism in Tibet and Xinjiang, a failure to reform the state-owned enterprises that produce simultaneously a budget default and massive unemployment, increasing economic demands from a graying population, the continued rise of anti-modern religious/martial arts cults, and a series of poor political judgments. A collapse could produce a return to warlordism, economic disaster, humanitarian catastrophe, the potential scattering of China's weapons of mass destruction, terrorism, and massive black markets run by organized criminals with links to crime syndicates outside of China. Just as Russian weakness has come to plague U.S. national security policy, so acute Chinese weakness might do the same.

No one knows what China will look like over the next 25 years. The only thing that seems truly clear is that the status quo cannot persist. The notion that China could grow economically between 6 and 10 percent each year for 25 years and still be governed by a sclerotic Chinese Communist Party is simply beyond credence. Something has to give, but the predicates for what that something will be remain unclear.

Aside from a regional or global economic downturn and the possible transformation of China into a major problem, a third worry is rather old-fashioned: the destabilization or mismanagement of the regional balance of power.

In East Asia, three nations form the true pivot of regional geopolitics: China, Japan, and Korea. It may seem odd to minimize the importance of such major states as Indonesia (213 million people), the Philippines (78 million



people), and Thailand (60 million people), to name just three. And yet it is true.

Of course, this does not mean that other countries are of *trivial* significance. Indonesia is the world's fourth most populous country and home to the world's largest Muslim population. It has played pivotal roles in ASEAN, ARF, and APEC, has supported UN peacekeeping operations, has been involved in global disarmament efforts, is rich in oil, and straddles some of the world's most critical sea lines of communication.<sup>146</sup> The outcome of Indonesia's economic and political restructuring will play an important role in the future stability of East Asia. A democratic Indonesia that peacefully resolves separatist claims could capitalize on its demographic and economic potential and be a stabilizing force in the region. Conversely, if Indonesia's military turns against the democratic process or if separatist movements multiply and undermine the cohesion of the state, this archipelago could inundate its neighbors with refugees and become a harbor for international criminal and other elements. The break-up of the country, or its collapse into a multifaceted civil war, would be both a political and humanitarian nightmare for the entire region.

Southeast Asia, too, is important to U.S. interests. Not only is this region likely to play a more important global economic role, but it is an area to which competition among China, India, Japan, and Korea could flow, especially if the area itself becomes unstable. It is also an area in which elite attitudes toward democracy are very mixed, and it may thus become an important stage of ideological drama over the next quarter century.

Nevertheless, the geopolitical triangle formed by China, Korea, and Japan matters most to the United States. It is an extraordi-

narily complex, yet familiar, triangle. In a world where global economic integration and technological dynamism take rhetorical pride of place, and where economics is often believed to trump the hoariest political legacies, geopolitics seems to grow pale. But the level of mistrust and outright fear among these three countries is a reality that will endure. Chinese political elites and intellectuals resent Japanese successes and yearn to reestablish Chinese national dignity, somewhat at Japan's expense. Nearly all Koreans resent Japan as well, but fear moving too close to China. The Japanese fear Chinese and Korean revanchism, and their pacific and generally mercantilist attitudes since World War II have been unable to fully overcome historical legacies. Added to this mix is the influence of both Russia and the United States, which for reasons both geographical and historical are bound to and will invariably influence this triangle.

The spark that could ignite a conflagration among this triangle could fly from a nationalistic and aggressive China, a nationalistic and nuclear-armed reunified Korea, or a militarily assertive Japan. It could also arise from a steady accretion of Chinese strategic military power that comes to undermine the credibility of both explicit and implicit U.S. security guarantees to Japan, Korea, the Philippines, and other countries. But as historical analysis teaches us, the timing and the order of such shifts would be crucial, and knowing that timing and order beforehand is virtually impossible.

Korea seems the most likely starting point for major change. But we do not know exactly what change in Korea will look like. If the aging Stalinist regime in North Korea

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<sup>146</sup> U.S. Department of Defense, *The United States Security Strategy for the East Asia-Pacific Region 1998*, p. 36.



suddenly collapses under the weight of its own atavisms, and a new leadership in Pyongyang essentially throws itself upon the mercies of the government in Seoul, Korean reunification will still be a mammoth task. It would be even greater, however, if reunification is preceded by a desperate war launched by a panicky North Korean leadership. Japanese reactions to such a war would either vindicate or deeply erode the U.S.-Japanese security relationship.

It does not take much imagination to envision a major shift in the East Asian geopolitical triangle if Korea does not dismantle the North's nuclear weapons program upon reunification. That shift would be even greater in magnitude if Japan and the United States part ways as a result of the events surrounding Korean unification. Under such circumstances, Japan would face pressures to become a nuclear weapons state. The triangle could then be composed of three mutually suspicious, nuclear-armed states.

It is not hard to see the predicates for a "go it alone" scenario in Tokyo, even though, on balance, it is not very likely to occur. It could go something like this. Under the best of circumstances, Japan's share of global GDP will have dropped from about 8 percent in the late 1990s to roughly 4.5 percent by 2025.<sup>147</sup> For a political culture that has based its self-image almost exclusively on economic success since 1946, this is not good news.

But the best of circumstances cannot be guaranteed. The economy may shrink dramatically if Japanese leaders fail to introduce effective economic and financial reforms. The political system could remain essentially paralyzed. After years of negative economic growth and a severe pension crisis touched off by Japan's graying population, the political

stasis in Tokyo might finally break open. Having persuaded the country to reemphasize Japan's military traditions, a new party could come to power dedicated to restoring national pride and competing with a rising China. Such a coalition of conservative leaders would break Japan's bilateral security agreement with the United States. Meanwhile, American leaders could miss the early signs of major change, frustrating the Japanese even further and contributing to their alienation from the postwar partnership.

So a shift in the triangular relationship might commence from a point other than Korean unification. It is also altogether possible that Korean unification could be delayed for another 20 years or more. Beyond rebuilding the economic infrastructure, the South understands the huge task of integrating such a poor population of 25 million people, not to speak of the enormous difficulty of demobilizing, retraining, and employing the hosts of a 1,144,000-man North Korean standing military force. And unlike Germany, where nationalism drove reunification, Korean nationalism sits better historically with a divided peninsula. Seoul may thus be content to let the United States and others tend to a decrepit North Korea as an international ward, a tack the North Korean leadership would un-

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<sup>147</sup> The Ministry for International Trade and Industry (MITI) estimates that even if Japan emerges from its current eight-year recession, it cannot expect more than a 1.8 percent growth rate between 2000 and 2010, and a paltry 0.8 percent thereafter. These estimates, which take into account Japan's sharply aging population, its bank debts, and its decline in productivity are optimistic. The well-regarded nonprofit affiliate of the Nikkei newspaper group in Tokyo, the Japan Center for Economic Research, projects near zero growth through 2003, and then a long, gradual shrinkage in GDP after that out to 2025. See Peter Harcher, *The Ministry* (Cambridge: Harvard Business School Press, 1998).

doubtedly prefer to the “East German alternative” of closing up shop for good. If that happens, Korean unification could be a very protracted, perilous, and expensive task.

If the tectonics of this triangle do shift, it will set off major changes with which the United States, by dint of the entanglements of postwar history, will have to deal. This is because the United States remains the only country external to the region with both the power and the desire to balance off local states and promote stability through reassurances to all three countries. The U.S. presence in East Asia has been, and will continue to be, critical to the region’s stability and prosperity. Regional fears of China could lead to a continuing and even an expanded U.S. military presence in East Asia. Yet a host of regional and national changes could place pressure on the United States to reduce or withdraw that presence. It is even possible that pressures for and against the U.S. military presence in Asia will be brought to bear simultaneously.

One general source of pressure for reducing the U.S. military presence is that overseas basing is becoming more vulnerable to a wider number of countries that could use ballistic missiles armed with weapons of mass destruction. That could make U.S. bases potential *sources* of danger rather than bulwarks against it, and raise their political and monetary costs.<sup>148</sup> Overlapping political pressures could also arise. As noted, a major sea change in Japanese politics could lead to a sharp reduction or even an elimination of U.S. bases in Japan. A reconciliation on the Korean peninsula would eliminate the most obvious and immediate justification for U.S. bases there.<sup>149</sup> Reunification could also stoke Korean nationalism, and simultaneously convince American public opinion and the Congress that

a U.S. military presence in East Asia is no longer a necessary or a wise investment.

Ultimately, however, whether the positive potential of East Asia is realized, or whether a less sunny future is in prospect, depends less on U.S. policy than on the initiative, discipline, and foresight of East Asians themselves. Those prospects will also be affected powerfully by the course of the global economy, over which U.S. government policy has an important but limited influence. It will also be affected by whether the potential for significant internal and international violence in the region is restrained, and here the skill with which the United States serves as an engaged balancer could be a major factor.

Clearly, a reduction of U.S. commitment and engagement in East Asia, especially if it is simultaneously abrupt and deep, will increase the likelihood of instability as states struggle to define a new regional balance of power. From a strategic point of view, the essential U.S. choice may boil down to this: either remain engaged at greater *short-term* peril and political cost to ourselves, or disengage at the potential cost of greater *long-term* peril to everyone.

### *The Greater Near East*

The Greater Near East—defined here as the Arab world, Israel, Turkey, Iran, Central Asia, the Caucasus, and the Subcontinent—is the site of the world’s largest supply of fossil fuels and a place where several ambitious powers actively seek regional

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<sup>148</sup> See Bracken, “America’s Maginot Line.”

<sup>149</sup> It would also put U.S. forces in a country with a land border with China, obviously affecting the political interpretation of those forces.

hegemony. It is a region where the United States has key allies as well as important interests, and where weapons of mass destruction are being actively developed. Not entirely by coincidence, too, it is the place where the United States fought its last major war, in 1991, and it is the only region of the world where more or less permanent U.S. forward-based military deployments have expanded since the end of the Cold War.

also the site of politically radical, militarized Islam, which, if not a mortal threat to its host societies and to neighbor states alike, is at least a significant irritation and source of instability. Several parts of the region—Lebanon's Bek`a valley at one end and south central Afghanistan toward the other end—supply a large volume of illicit drugs to many parts of the world. The area is also a cauldron of sectarian rivalries among Sunni and Shi`a Muslims; between



Hence, the Greater Near East is appreciated in the West as a region of great importance but also great trouble. This is undoubtedly so, even if one sketches the region without reference to U.S. interests. Despite unprecedented prospects for Arab-Israeli reconciliation, the area still exhibits many and sundry depredations. It has a high concentration of despotic regimes and, aside from Israel, India, and Turkey, no institutionalized democracies. It is

Muslims and Hindus, Jews, Coptic Christians, and Bahais; and between Hindus and Buddhists in Sri Lanka. Ethnic violence within and among countries involving Kurds, Turks, Arabs, Persians, Armenians, Azeris, Singhalese, Tamils, and others is bountiful. Finally, one is hard pressed to think of any 25-year period in the documented history of this diverse region when there has not been at least one major spasm of civil or cross-border warfare.

As one looks toward the future, such a legacy is perhaps disheartening. But there is yet more. Beyond the region's checkered past, the next 25 years pose potentially wrenching and destabilizing change. That change will come in at least three forms.

First, whenever a great empire collapses it produces a shatterbelt of instability around its periphery, one that usually lasts for many years.

to appear more reminiscent of the 15<sup>th</sup> and 16<sup>th</sup> centuries than of the 18<sup>th</sup> or 19<sup>th</sup>. Not only have Muslim Central Asia and the Muslim peoples of the Caucasus been reunited with the rest of the Near East, so to some extent have the Muslims of the Balkans thanks to the extremely painful slow-motion collapse of Yugoslavia.

Farther east, the collapse of the Soviet Union left India without a superpower patron to

### **Areas of Conflict**



The headlong collapse of Russian power is a pertinent example for the Greater Near East. For the first time in more than three centuries, three core countries of the region no longer directly abut Russian power: Afghanistan, Iran, and Turkey. Traditional commercial and cultural contacts between lands south of the Oxus River and those beyond it in Central Asia have been restored after nearly a century of interruption. The Silk Road is slowly being revived, and patterns of exchange have begun

balance China, which in turn accelerated India's desire to demonstrate open nuclear weapons possession. This is a fact of geopolitical life no less clear than the fact that the Soviet collapse has allowed China to rebalance its military attentions away from the Russian border and toward the South China Sea. India's test was also the spark for Pakistan's public nuclear arrival, and that, in turn, has made Iranian aspirations to acquire a strategic balancer virtually impossible to slake—and

that aside from the threat to Iran from the all too obvious Iraqi efforts to obtain weapons of mass destruction.

So far, the post-Communist shatterbelt has produced or prolonged war “only” in the Balkans, the Caucasus, Tajikistan, and Afghanistan. By historical standards, however, it is still too soon to conclude that the dust has settled. The number of wars, small and not-so-small, that even reasonably sanguine analysts may justifiably expect to see in this region over the next 25 years is large. Several could be attributed to the after-shocks of the Soviet collapse.

A second source of change has been noted above: demography. For the first half of the period out to 2025, most of the countries of the Greater Near East will experience rapid population growth and a significant drop in the mean population age. A youth bulge is making its way through many populations in the region, due in part to health and sanitation improvements and in part to the demographic momentum from an earlier population boom in the 1970s and 1980s. Such population dynamics pose severe challenges for many societies. They strain the natural and social environments through the need for potable water, housing, education, and medical services.<sup>150</sup> Unemployment, income disparities, and ethnic tensions generated by such problems may also contribute to significant internal migrations, largely from countryside to towns and cities, and some cross-border migration as well—including into Europe.<sup>151</sup> Toward the middle of this period through 2025, increased urbanization and female literacy will probably cause birth rates to progressively drop, and pressures on services will subside to some extent.

A third source of change has been rehearsed in some detail above: the tumult we may expect from the continuing economic integration of the globe. Even a mainly benign, successful process of integration will introduce many stresses to the non-Western cultures of this area. Secularization is but one; new neo-universal norms of Western origin concerning human rights, minority rights, and particularly women’s rights are another. Should global economic integration produce repeated cycles of boom and bust, should it produce patchwork polarizations of success stories and failures within regions and countries, or should it empower certain states and groups militarily so as to produce sudden perturbations in security relations, the region could succumb to very harrowing times.

One might gather from the foregoing that the Greater Near East will not be a prime zone for enterprising Americans, Japanese, or Europeans to go sell insurance or take leisurely vacations. Not necessarily. Just as in Greater Europe and East Asia there are optimistic as well as pessimistic possibilities with which one may view the future, such is also the case in viewing the Greater Near East.

What could go right amid so many possibilities for trouble? The answer is plenty, and one of the main reasons, interestingly enough, lies in the social power of religion to absorb the shocks of globalization.

Some large and important countries in the region may well break the spell of *étatisme* and tie themselves more fully into the global

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<sup>150</sup> See *Population and the World Bank: Adapting to Change* (Washington, DC: The World Bank, 1999), pp. 8-9.

<sup>151</sup> Of the 170 million people living around the Mediterranean in 2025, 10 percent will be European, 22 percent will be Turkish, and about 68 percent will be Arab.



economic system. At the least, the top managerial echelons of business and government will be fully up-to-date in nearly all oil-rich countries and most others as well. Israel and a few of the Arab states (most likely Qatar and the United Arab Emirates, and possibly Iraq and Saudi Arabia as well) will feature fully modern economies; India, Iran, Egypt, Turkey, and a few other regional states will have, at the least, very modern sectors within their economies. As a result, both extra-regional and intra-regional trade as a percentage of national gross domestic product will climb from late 20th century levels. Several countries in North Africa—Morocco, Tunisia, a recovered Algeria, and a post-Qadaffi Libya—may attract substantial funds from East Asia both as investment in their energy resources and as ways to penetrate into Europe via European Union trade agreements with North African states.

Led by a new generation of mainly Western-educated elites, some countries—especially but not exclusively oil-rich countries—may also become both successful niche producers and major international financial hubs, following the 1990s model of the United Arab Emirates. Economic restructuring and advancement could transform several regional states into important capital markets, and better than 4 percent yearly growth rates in GDP are not out of the question even for the majority of regional states. The establishment of an effective Middle East Development Bank that would help stabilize the region's oil havens is not out of the question either.

One result of rapid growth, no doubt, will be greater economic disparity among regional states between those that are plugged into the world economy and those that are not. Whereas in the last quarter of the 20<sup>th</sup> century, intra-regional economic differences were explained mostly by the chance occurrence of

fossil fuel deposits, in the first quarter of the 21<sup>st</sup> century even greater differences will be explained mainly by different levels achieved in the development of human capital, economic openness, and political dynamism. But the most important thing is that all countries in the region will see that real change, and real success, are possible. If Saudi Arabia, Iran, Turkey, Israel, Egypt, and India, to name the major players, achieve an economic take-off in tandem with the tides of global economic integration, the region will never again be the same.

There is no question, in any event, that the raw resources will be in place to finance such growth. Some \$500 billion in Arab money rest in banks and investments outside the Arab world. If economic rationalization can bring most of that money back into the region, the pool of investment funds will be enormous. Turkey may attract funds as well from other Turkic-speaking regions: Turkmenistan, rich in natural gas, Azerbaijan, which sits on oil and gas, and even Uzbekistan, the largest and perhaps in the future the most economically dynamic of the Turkic-speaking states of Central Asia. India is so large that it can generate most of its own capital, although its tremendous infrastructure requirements could easily absorb all its capital and more. Israel will attract funds from the world over due to its special richness in human capital attuned to the information age.

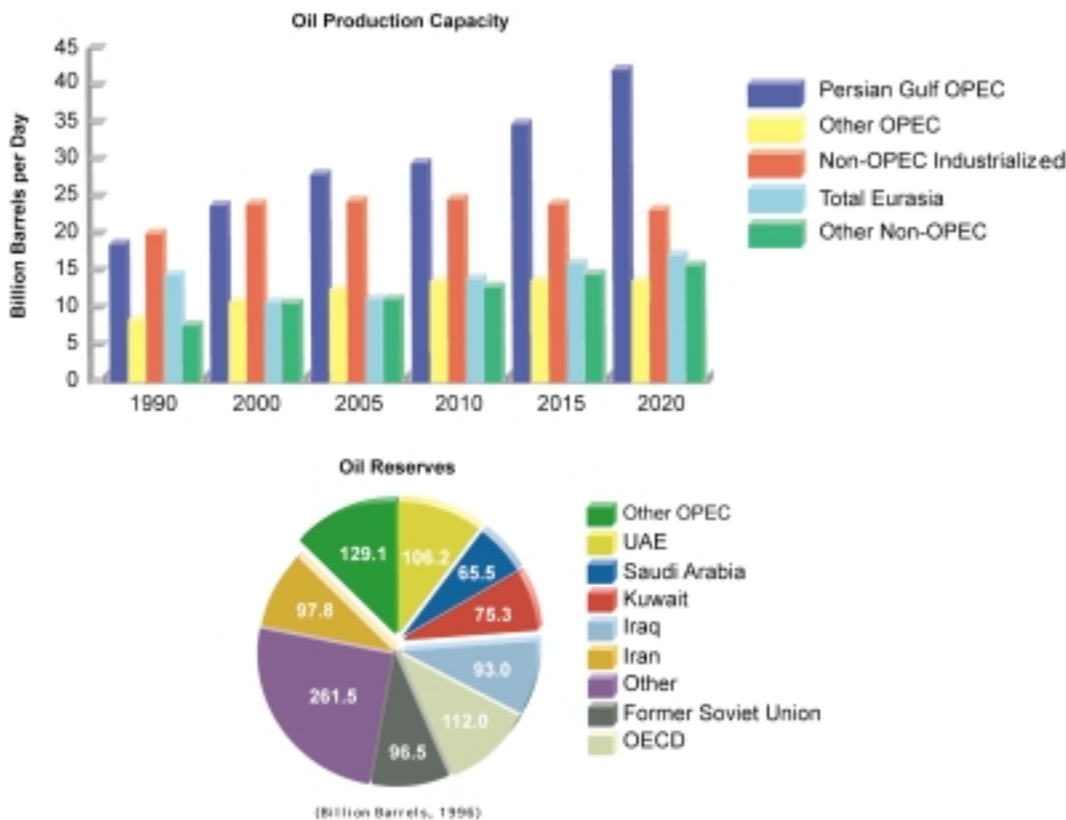
And that is not all. Japan, Europe, India, China, and most of developing East Asia will remain heavily dependent on oil and natural gas from this region. Chinese dependence on both Persian Gulf and Caspian Basin oil and gas will grow sharply. Investment in the Near East by East Asians should also expand. In short, there will be plenty of money around to finance real growth.



Moreover and more important, new wealth may have significant positive political implications. Virtually all national elites, and much of the middle class strata, will be connected technologically to the developed world. The demonstration effect of such new technology, including its pop cultural forms, will initially exacerbate social divisions within countries and make the task of authoritarian control more difficult. New wealth will also likely spawn new

corruption, and new reactions to that corruption. Also, to the extent that growing literacy rates and urbanization connect over time with increased computer literacy and the availability of technology for large numbers of people, authoritarian control will grow more difficult still.<sup>152</sup> This is because such a connection may challenge both traditional government control of significant commerce as well as traditional attitudes toward education and educational authority; significant

Global Shares of Oil Production



Sources: Adapted from *International Energy Outlook 1999* (Washington, DC: Energy Information Administration, 1999), Appendix D; and British Petroleum, *Statistical Review of World Energy*, 1997.

<sup>152</sup> The Al-Jazira television network, based in Doha, Qatar, has become enormously popular in the 22 Arab countries where it can be viewed. It has also generated much fear and loathing among authoritarian governments for whom objective news programming and intellectual openness is a threat.

anti-authoritarian social implications flow from both. The weakening and potential transformation of Near Eastern autocracies, if it does not come too suddenly, stands to do enormous good for the region.

The political implications of such a weakening, however, could include a danger of populist demagoguery as well as greater political pluralism. But if the latter should dominate the next 25 years, the politics of the region will have taken a major step forward. The very dangers of social disruption will perhaps furnish the incentive to change if economic, social, and demographic pressures are strong enough to persuade governments to open up, but not strong enough to overwhelm them before their new approaches can bear fruit. Political liberalization largely driven by economic reform could well take root in a number of Arab countries (Morocco, Jordan, and Tunisia are likely near-term candidates), leading to still further pressures against authoritarianism in neighboring states.

Governments may also usefully employ the growing social authority of Islam to reinforce political community rather than try to control, manipulate, or extirpate Islam as many have done in the past. As one country after another opens up without triggering massive political tumult, others are more likely to follow suit. With prudent economic and political encouragement from outside the region, each opening would reinforce the other economically and psychologically, and in time the large majority of regional societies would find ways to adjust to new circumstances. Their Islamic societies cohere, and by and large their governments, sensitive to religious strictures, would work.

One cannot stress too much the potential significance of religious culture here. Islam is an increasingly significant social force throughout the Muslim states within the region,

but mostly in the form of neo-orthodoxy, not fundamentalism—and the differences between them are crucial. Islamic neo-orthodoxy is neither militant nor expressly political in nature, but exerts an increasingly powerful social force in several societies (including current U.S. allies such as Pakistan, Egypt, and Turkey) that strongly influences—and at times embodies—political movements, alignments, and moods. Meanwhile, highly politicized fundamentalist challenges to states are waning, and no Muslim countries, beyond Iran, Afghanistan, and Sudan, are likely to develop theocratic governments over the next quarter century.

Contrary to what some outside the region think, there is no plausible means of social management and adjustment to vast change in the Muslim world outside of Islam. For these cultures, the process of secularization, associated organically in the West with the Enlightenment, the Reformation, and the Industrial Revolution, simply never happened, and so carries almost no social resonance.<sup>153</sup> But Islam is potentially capable of supplying such a means of adjustment. Judging by what engaged middle classes in almost all regional societies are reading and debating nowadays—where a tremendous interest in adapting religion to modernity is underway—there is some prospect that these traditions will be up to the task.<sup>154</sup> Add to that

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<sup>153</sup> See Ernst Gellner, *Nationalism* (Washington Square, NY: New York University Press, 1997), chapter 13.

<sup>154</sup> There is foremostly the remarkable example of Muhammed Shahrur's *Al-Kitab wa-l-Qur'an* ("The Book and the Qur'an"), which has sold tens of thousands of copies throughout the Arab world since it was published in 1992. Shahrur, a Syrian engineer, argues for a reformist Islam that comes to terms as equal partners with modernity. Some clerics have banned it and pronounced it heresy, but that has not stopped people from reading and discussing it in unprecedented numbers. Similar phenomenon may be noted in Turkey, Bangladesh, Indonesia, Morocco, Egypt, and elsewhere

the impact of mass education and mass communication, and it becomes clear that vast and potentially very positive changes are afoot in the region where it matters most: on the street.

One crucially important aspect of change within Islamic cultures over the past several decades concerns the role of women within Islam. This has become the touchstone social and theological issue in many societies, and one that is widely misunderstood outside the Muslim world. When an Egyptian, Turkish, or Pakistani woman chooses to don a headscarf, it does not necessarily mean that she or her husband has become an “Islamic fundamentalist.” More likely, this is an example of neo-orthodoxy in action. She usually does it not because her mother and grandmother did, but because they did not. In other words, such behavior today is generally associated with upward mobility, urbanization, and greater literacy. Increased personal piety is thus often a function of the movement from a mimetic to a textual reading of religious tradition. This movement is aided not only by increased literacy but also by urbanization, for urbanization represents the shift from the Sufi-influenced folk-religion of the countryside to the “high” literate Islamic traditions of the city.<sup>155</sup> Neo-orthodoxy is *not* socially regressive, nor is it primarily political in motive. It also suggests more, not less, participation in public life by women, particularly as the percentage of literate women continues to increase throughout the Muslim world.

If Islamic reformism, propelled by changes in technology, economy, and society, comes to dominate the political processes of most majority Muslim cultures, it is at least possible that no major war will have occurred in the majority Muslim states of the region by 2025. That would create a sense of optimism and security that can further trans-

form the landscape. One reason for thinking this possible is the vast generational change now taking place throughout the region. Sometime in the next 25 years, for example, there will be generational change in the political leaderships of Iraq and Iran (as well as those in Egypt, Saudi Arabia, and Syria), following recent successions in Jordan and Morocco. If those changes are a prelude to reform and political moderation, both countries could come to focus more on internal economic and political development and less on regional rivalries and investments in armaments.

It is also possible—even likely—that the Iranian theocracy will collapse in the next quarter century. Iran is an Islamic Republic at present, but it cannot remain both for long: it will either stop being a republic and descend into truly medieval-style rule, or it will stop being an Islamic theocracy. The battle for that future has already been joined, but how it will turn out no one knows. Should the current regime collapse, however, it would send shock waves through the Islamic world and undermine radical Islamist movements everywhere. It would open the way for a U.S.-Iranian rapprochement that could have broadly positive effects in the region and beyond. In turn, if the theocratic regime in Iran and the Ba’athi regime in Iraq are deposed or sharply moderated before they acquire and deploy nuclear or biological weapons, the pressures on other states to match step may dissipate. The threat to use all such weapons would also decline if regional political disputes fall to diplomatic amelioration. The status of weapons of mass destruction would suffer, and the diplomatic

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<sup>155</sup> Here see Ernst Gellner, *Post-Modernism, Reason, and Religion* (London: Routledge, 1992). A similar phenomenon in the movement from mimetic to literary tradition has been occurring in Judaism, with some parallel effects. See Haim Soleveichik, “Rupture and Revolution: The Transformation of Modern Orthodoxy,” *Tradition* 28:4 (Summer 1992).

and domestic political costs of building them might come to exceed the presumed benefits.

The last stages of the Arab-Israeli conflict could finally be set to rest with an agreement that creates a semi-independent Palestinian state. Peace would not be warm, and not all Palestinians or Israelis would be reconciled to the compromises involved. But the ongoing dispute would be effectively isolated from more portentous regional considerations largely by dint of an Israeli-Jordanian understanding supported by the United States.

Neither peace nor war will probably continue between Israel and Syria, as Syrian politics remains in Alawi hands and Lebanon, for all practical purposes, remains in Syrian hands. A real peace would be likely only should there be a regime change in Syria, but at present there is no discernable and effective opposition to Alawi rule. On the other hand, were peace agreements with Syria and Lebanon to occur along with political normalization with Saudi Arabia—allowed by a symbolic compromise over Muslim holy places in Jerusalem—Israel might agree to limit its nuclear program. It might even open it to international inspection.

Whether Israel makes peace with Syria or not, closer economic and security ties between Israel and Turkey are likely. An even wider association that might include Jordan, Azerbaijan, and Kazakhstan is also possible.

Even reconciliation between India and Pakistan is conceivable, not least because the threat of nuclear destruction may force both parties to ultimately transform their enmity, or at least to pursue it by non-violent means. That, in turn, could lead to restraints on the part of both countries in their further deployment of nuclear weapons and missiles. Mutual agree-

ment between India and Pakistan to abolish their nuclear weapons is not likely, unless somehow China and others would agree to do the same—which is even less likely. But their constraint could be formalized, and the United States and the EU might play important roles in helping the two sides come to agreement.

Positive domestic developments may also be in store for India. Many analysts believe that India might be able to maintain economic growth rates between 6 and 9 percent for most of the period. If so, its aggregate economic strength will equal that of the present day Chinese and ASEAN economies combined. By 2025, India will be more populous than China and, despite appalling poverty, will have the largest educated middle class in the world in absolute terms.<sup>156</sup> India may also remain a democracy, a technologically innovative society, and a proud and confident cultural entity despite its many enduring problems. Under such circumstances, India will play a larger and more varied role in the region, one that could find itself in general consonance with U.S. interests. Israel and India might also become important allies.<sup>157</sup>

Having paid our dues to optimism, we would be remiss not to note the more pessimistic possibilities for the region. As suggested above, there are many.

The Greater Near East is a place—not unlike many others—where a very few positive but seminal developments can go a long way to

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<sup>156</sup> India also has, however, a large majority of the world's illiterate—nearly 500 million people. For a brief demographic sketch, see Barbara Crossette, "In Days, India, Chasing China, Will Have a Billion People," *New York Times*, August 5, 1999.

<sup>157</sup> Israeli-Indian cooperation has grown markedly, if quietly, since 1994. See Ze'ev Schiff, "The Complex Israel-India Connection," *Ha'aretz*, August 19, 1998; and "India and Israel vs Pakistan," *Foreign Report*, June 11, 1998.

insure peace and stability, but a few negative ones can similarly cause enormous trouble. The key to which direction the future will take comes down to a relatively small number of contingent events, namely whether major wars can be avoided and whether regime changes in major countries can proceed peaceably.

Avoiding major warfare and the occasional violent regime collapse will not be easy over the next 25 years. There are many pitfalls along the way. More than one major regional war will probably occur, causing a deterioration of the general regional security environment, and making it more difficult for any power or combination of powers to moderate political enmities and minimize local arms races. Consider the following list, set down in rough order of the seriousness of the potential conflicts. These conflicts are discussed in conditional terms because, while the potential exists for all of them to occur, it is not possible to predict exactly *which* of them will occur.

Iran and Afghanistan could well find themselves at war over Taliban policies toward Afghanistan's Shi'a Hazara population, drug and weapons running, interpretations of Islam, and sheer geostrategic rivalry. Such a war might also involve Tajikistan and Uzbekistan, each thinking to absorb the ethnic Tajik and Uzbek populations of Afghanistan north of the Hindu Kush, where the writ of the mainly Pashtun Taliban does not run deep. It could also pull in Pakistan, which in turn could help destroy that country in its current territorial configuration. The collapse of a nuclear-capable Pakistan would quickly become an urgent international security issue. Such events, too, might then open the way for an Indo-Iranian competition over the Punjab, Sind, and Baluchistan. Both countries could have nuclear capabilities by the time such a

contest would develop. In all this we see a quintessential example—one of a great many—of the mixing of internal conflict with possible cross-border violence.

India and Pakistan might fall into a major war as a result of miscalculation when fighting erupts in Kashmir—as it did in June 1999. Another Sino-Indian border war is also possible; India believes that a slice of Kashmir is occupied by China.

Iran and Iraq will likely remain generally hostile to each other and might again fight over historical and ethno-religious enmity as well as territorial disputes. Iraq and Turkey could find themselves at war over some combination of the Kurdish issue, water rights, and the ownership of Mosul and its oil rich environs. Syria and Turkey could also fall to blows over some combination of Kurdish issues, water rights, and the future of Hatay. A Greco-Turkish war over the future of Cyprus, too, might subsequently lead Syria and possibly Iraq to launch a revanchist military campaign against Turkey.

In Central Asia, Kazakhstan and Russia might struggle over northern Kazakhstan, which is overwhelmingly ethnic-Russian in population. The post-Soviet states of Central Asia could also become roiled in conflict over the fertile and ethnically mixed Ferghana Valley. Uzbek nationalism may become disruptive, clashing with a rising Tajik nationalism supported by Iran. Uzbekistan's relations with Kyrgyzstan might decline over water disputes, and the Kyrgyz may turn to a closer relationship with China for this and other reasons. Turkey and Iran could find themselves supporting proxy warfare between Uzbek and Tajik interests, or being drawn into war themselves over spheres of influence and client relationships in Central Asia. In the Caucasus, the



Azeri-Armenian war over Ngorno-Karabakh could flare up again, for it is unlikely to be finally settled soon. Continuing Russian meddling in Georgia and Tajikistan cannot be ruled out. Iranian-Azeri conflict over Azeri irredentist claims is not out of the question either.

Existing Arab-Israeli political arrangements could also collapse. Egypt might defect from the peace arrangement with Israel on account of a change of regime in Cairo. A civil war could erupt in the area of the Palestinian Authority after the passing of Yasir Arafat, with the consequent reshaping of Israeli and Jordanian regional strategies. Contrarily, an irredentist Palestinian state might manage to overshadow and envelop Hashemite Jordan, and make common cause with both a post-Alawi Syria and with a post-Saddam Iraq to recreate an eastern front against Israel. Israel might also be attacked by either Iraq or Iran in a missile war over existential religious and historical issues.

Even small wars could have serious consequences depending on where they are or who fights them. A Saudi-Yemeni war over the still disputed region of Asir is an example. So would be fighting inside the Persian Gulf between the United Arab Emirates, possibly with Bahraini and ultimately Saudi support, against Iran over Abu Musa and the Greater and Lesser Tunbs Islands, UAE territory occupied by Iran since 1971.

It is highly unlikely that all or most of these conflicts will actually break out over the next 25 years. *But it is even less likely that none of them will.*

**A**s for regime change and national coherence, here we must return to the sources of social and political instability

noted above, and examine their potential downside.

It is possible that generational leadership successions occur throughout the Arab world, Iran, Central Asia, the Caucasus, and South Asia, but the political characteristics and global orientations of the major regimes nevertheless remain basically unchanged. Currently autocratic regimes may well remain autocratic without having instituted significant changes in their political structures. They may resist pressures to change, and catalyze no little violence in the process. Thus, episodic social unrest, religious violence, and ethnic conflict could characterize the domestic conditions of several states in the region.

That unrest would most likely be triggered in part by high population growth, but also by economic stagnation. The elites of major states may react to globalization pressures with new forms of corruption and fake, crony privatization schemes. This is already the case in some respects, and it is not hard to see why.<sup>158</sup> Many regional elites are simply doing what they have always done—taking, not making—in accordance with an attitude toward civic duty embedded deeply in the fabric of the local political economy. Here states have more often than not functioned according to a rentier model. While in most countries citizens pay taxes to the state and the state provides services, in many Arab countries the flow of money has been the other way around. States accrue resources from external sources—oil revenues, port fees, banking services, and so forth—and then distribute the money as patronage down into the population. The rentier model functions as a means of

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<sup>158</sup> See Ali R. Abootalebi, "Middle Eastern Economies: A Survey of Current Problems and Issues," *Middle East Review of International Affairs* (Ramat Gan), September 1999.



control for the state elite, but it vitiates the ties of citizenship produced by a more standard model of reciprocal obligation between citizen and government.<sup>159</sup>

This is an important factor militating against elite support for any form of technology-driven entrepreneurship that the elite cannot control. All non-hierarchical forms of social power would upset traditional arrangements, and most elites will oppose it even at the cost of overall economic stagnation.

It is even possible that at least some nervous governments will seek to maintain a near total insularity against social pressures and external allurements alike. They might simply refuse to condone, let alone advance, a more open attitude toward the outside world. They may shun foreign investment despite the knowledge that they may miss a great wave of regional prosperity. If such an attitude is limited to countries like Afghanistan, Yemen, or Oman, the implications would be modest. If it should come to influence Saudi Arabia, Iran, and even an Islamist Pakistan, that would be another matter altogether.<sup>160</sup>

It is also possible that Islam will not provide a means to soften and advance social change. One could argue that Islamic societies tend to cling to the two anchors of social authority they best know and trust to ward off chaos: religion and extended family. But these anchors cannot solve the demographic and social problems before them, and a downward spiral of insularity and dysfunctional government may end up dividing such societies ever further from the world's successful models of development.

While it is not likely, it is possible that oil and natural gas supplies from the region will no longer figure prominently in global

markets, either because turmoil and conflict have disrupted their flow or because alternative sources of energy are developed. If that were to happen, these countries could become dramatically poorer, and the stability of these economies and regimes would eventually become less important to the United States and other major advanced countries, their own lingering investment portfolios notwithstanding. In any event, some of the smaller Gulf producers may reach the bottom of their reserves over the next 25-years, and if they have not managed to diversify by then, they will go bust.

Contrarily, the absence of energy alternatives, set against the inexorable limits of fossil fuel reserves, could lead to another sharp rise in prices between now and 2025. Oil-rich countries might then use bloated revenues to pursue regional political and military competitions, as they did in the 1970s. Corruption would likely increase, as would resentment against elites. Surely, another oil shock would send the international economy, or much of it, once again into the doldrums, and that in turn would again spell disaster for the non-oil rich states of the region.

Very bad things could happen in the broader security sphere as well. The Greater Near East will remain heavily armed, and could be the region where the majority of

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<sup>159</sup> See Lisa Anderson, "Obligations and Accountability: Islamic Politics in North Africa," *Daedalus*, Summer 1991. The same is true to a certain extent in India, where only a quarter of 1 percent of the population pays taxes.

<sup>160</sup> Oman and Saudi Arabia have been the two most deliberately insular Arab states in modern times. Oman began reducing its insularity in the 1970s; as a sign of the times in Saudi Arabia, in the fall of 1998 it became possible for the first time for foreigners to get a tourist visa into the country.

new nuclear states emerge. Iran and Iraq are real possibilities. Other states, too, such as Egypt, Syria, Libya, Algeria, Saudi Arabia and Morocco are keeping their options open, even while remaining parties to the Non-Proliferation Treaty. Prospects also exist for states and terrorist groups in the region to acquire chemical and biological weapons. Long range missiles are under development in many countries as well. Over the coming 25 years, we should expect that such weapons will be used in regional conflicts, as well as in attacks against Americans abroad and possibly at home.

Extra-regional influences might also alter the course of regional engagement for the worse. Such forces, consisting mainly of the United States, Russia, Japan, China, Turkey, and the EU, might engage in sharp competition over regional energy resources and political loyalties, leading local states to act recklessly and violently.

Political changes in regimes, especially those in major states such as India, Egypt, Saudi Arabia, Turkey, Pakistan, Iraq, and Iran, could also lead to dramatic shifts in military balances. This is a concern because, except in India and Turkey, the processes of political succession are not well institutionalized. Some of these regimes could be overthrown by revolution. It could be, for example, that after two generations of a flowering of Islamic neo-orthodoxy, the stage will have been set for the reemergence of fundamentalist movements amid economic depression and the failure of secular political parties to provide viable political leadership. Regime upheavals might therefore produce several ultra-conservative religious regimes in the region, each successive case gaining moral and possibly literal support from the ones before. Egypt, Turkey, Saudi Arabia, or Pakistan—or several

of these states—might suffer major political upheaval and be transformed into actively anti-U.S. regimes. In addition, and possibly simultaneously, the internal stability of Pakistan could come unglued in the face of political paralysis and economic distress, with Pashtun, Baluch, and even *mohajir* groups seeking their own states.

An anti-American regime in Saudi Arabia, one so antagonistic that it would refuse to sell its oil abroad, is not very likely. But were it to come to pass and be allowed to stand, it would represent a major blow to the liberal economic order brought into being after World War II.

It is also possible that the internal stability of India will decline sharply as Hindu nationalism roils the implicit social compact of the multiethnic, multisectarian state. Even though the electorate may turn the ultra-nationalists out of office, they may not accept the verdict, but instead resort to extra-parliamentary violence that severely undermines Indian democracy. India could even break down as a national state, generating enormous political and humanitarian crises over the entire region for an extended period. Obviously, a failure to prevent a major war with Pakistan or China could trigger such a disaster.

**B**eyond these two major potential reasons for pessimism—the possibility of regional wars and destabilizing regime change—there is a specific cause for concern in the coming conflicts over water resources.

Such conflicts are particularly likely between Turkey on the one hand and Syria and Iraq on the other, and also potentially among Egypt, Sudan, and Ethiopia. There is little potential for agricultural expansion in Egypt,

which already achieves some of the highest productivity-per-acre rates in the world, and there is much potential for both drought and for more Nile water being used by upstream riparians.<sup>161</sup>

Water stress in the Jordan/Yarmouk valley system among Israel, Jordan, and the Palestinian Authority will likely be ameliorated by some combination of regional cooperation on infrastructure modernization, economic restructuring away from irrigated agriculture, sewage water recycling, water imports, and desalination programs. Even with present technology and at current costs, it would cost about \$4 billion (including the major initial capital investments) to produce 700,000 million cubic meters of drinking quality water through desalination for the first year, and much less for each succeeding year. That amounts to about half of the annual discharge of the Jordan river system, and would make up most of the region's prospective water deficit. \$4 billion is a lot of money for a small region, but it pales besides the amount of money spent on arms imports. If human needs truly require it, governments and societies will find it affordable.

It is also possible that within 25 years economically sound ways will be found to tap into large resources of fossil water deep below the surface. Some geologists estimate that beneath the the Negev and Sinai deserts there may be reserves of potable fossil water sufficient to last the entire Levant for more than 250 years at current rates of utilization.

Finally, it almost goes without saying that U.S. policy in the region will make a difference. One possibility is that U.S. policies, similar to current ones, will lead to further pacification of the Arab-Israeli dispute, but not to a stable natural balance of

power in the Persian Gulf or Southwest Asia. Domestic political turbulence would continue to exacerbate interstate, inter-sectarian, and inter-ethnic relations. As a result, the United States would retain a significant military presence and diplomatic profile in the region.

But two other possibilities exist. In one, the United States would not only persist with current policies, but either definitively succeed or fail with them. In the second, the United States would choose not to persist.

If the United States persists and succeeds, it will mean that U.S. policies will have brought stable peace not only between Israel and all the major Arab states, but also in helping to shepherd transitions to peaceful polities in Iran and Iraq, and a peaceful resolution of the Indo-Pakistani conflict. Success would allow the United States to substitute much or most of its military presence in the region for a more robust diplomatic, cultural, and commercial presence. Contrarily, U.S. policies could fail to prevent more serious threats from arising, and the United States might then increase its military presence either to support a beleaguered Israel, to contain the rise of a regional hegemon, or prevent certain countries from acquiring weapons of mass destruction. From such a failure the United States would risk, or go to, war.

The major alternative is that the United States might pull back from involvement in the region. Two interwoven sources for such a change exist. A lessening of common purpose with the regional states is one. An unwillingness on the part of the American public to

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<sup>161</sup> See Arnon Soffer, *Rivers of Fire: The Conflict Over Water in the Middle East* (New York: Rowman & Littlefield, 1999), pp. 49-50.

support expeditionary military deployments is another. That unwillingness could follow terrorist attacks on Americans or from perceptions of U.S. vulnerabilities to missile attacks from such countries as Iran, Iraq, Egypt, Pakistan, and India. In short, the possibility exists that we might not persist, succeed, or fail, but rather disengage.

### *Sub-Saharan Africa*

**S**ub-Saharan Africa's last four decades, the decades of the independence period for most of the countries in the region, have been characterized by rampant instability, mostly despotic military rule, and corruption unsurpassed in its sheer venality.<sup>162</sup> The region has experienced frequent violent conflicts, including genocide of Africans by Africans. While bloody disputes over colonially drawn borders have been less frequent than might have been expected, such conflicts have taken place and have recently grown in frequency and scale. They pale only in comparison to the huge number of internal upheavals, lately evidenced by major troubles in Angola, the Democratic Republic of the Congo, Rwanda, Burundi, Mozambique, Sierra Leone, Liberia, and elsewhere. The continent has also been home to massive organized criminal activity. Infectious disease, malnutrition, and both environmental and refugee problems have soared to catastrophic levels.<sup>163</sup> Access to quality education has been a rare privilege in most countries. Shortages of fundamental infrastructure—roads, telephone services, power, clean water, health care facilities and trained personnel, trustworthy police forces—have been chronic and severe in cities and villages throughout the region. Today, for example, there are more telephones in the Borough of Manhattan, or in central London,

than in all of sub-Saharan Africa.<sup>164</sup> And economic growth has been anemic for the most part, as populations have grown rapidly.

Such conditions are headlines for the all-too-familiar bleak African story. Yet there is another story to be told. If one takes the longer view, the independence period in sub-Saharan Africa can be seen as a movement from mostly single-party government backward to no-party military rule, and then from military rule forward to more democratic rule and more open societies. Potentially far-reaching positive changes have been occurring in many African states in recent years. Countries such as Benin, Botswana, Cape Verde, Malawi, Mali, Mauritius, Namibia, Uganda, Ghana, Kenya, Tanzania, and Swaziland have been cultivating more democratic, market-based institutions.<sup>165</sup> Reformist leaders in these states are emphasizing the criticality of high standards of governance, and they are plainly dedicated to the serious improvements in the quality of life

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<sup>162</sup> Many African states fall near the bottom of global "corruption" rankings. See, for example, the "1998 Corruption Perception Index" prepared by Transparency International and Goettingen University's Internet Center for Corruption Research.

<sup>163</sup> Current HIV/AIDS cases in sub-Saharan Africa are estimated at about 14 million, fully two thirds of the world estimated total of 21.8 million. See UNAIDS Program data, *World Almanac*, 1998, p. 840. As to refugees, 35 percent of the people of greatest concern to the UN High Commission of Refugees (UNHCR) globally are in sub-Saharan Africa, the largest regional percentage by far. UNHCR, *The State of the World's Refugees: A Humanitarian Agenda* (Oxford: Oxford University Press, 1997), p. 3.

<sup>164</sup> Susan Rice, "Bram Fischer Memorial Lecture," Rhodes Scholars' Southern Africa Forum, May 13, 1999.

<sup>165</sup> See *Freedom in the World 1997-1998* (New York: Freedom House, 1998), pp. 600-1; and the 1999 *Index of Economic Freedom* (Washington, DC: Heritage Foundation, 1999).

for their countrymen. They are also often asking for the best international advice in building transparent, rule-of-law-based systems of governance. As a result, these economies are attracting important outside investments<sup>166</sup> and have been growing at very respectable rates, in several cases 7 percent or more a year.<sup>167</sup> In light of these accomplishments, some observers now herald an African renaissance.

Introduces people to new consumption patterns for food, clothing, and other goods. The result has been to stimulate demand, and that has aided economic growth in several countries over the past decade.

Beyond the successes of several small and medium sized countries, there are also encouraging developments in two sub-Saharan giants—South Africa and Nigeria.<sup>168</sup> South Africa is by



There is still more good news. Literacy rates are growing throughout the continent and the communications revolution is underway. While urbanization strains the capacity of government to deliver services, it can also be a crucial element in the building of national identity. When people leave their regions, they leave the pull of clan and tribal authority behind as well. While tribal groups tend to live in certain districts of cities, in time they tend to mix together far more thoroughly than is possible in rural areas. In some parts of Africa, too—most notably the Sahel—urbanization in-

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<sup>166</sup> During 1990-94 the average annual return on book value of U.S. direct investment was nearly 28 percent, about three times the rate of worldwide return in that period. See Department of State, "U.S. Trade and Investment in Sub-Saharan Africa," December 1997.

<sup>167</sup> For example, 1998 GDP growth for Mauritius was over 10 percent, Botswana's was about 7 percent, and Ghana's about 6 percent. IMF, *World Economic Outlook*, October 1998, p. 188.

<sup>168</sup> The approximate populations of these two states in 1999 were: Nigeria (113 million), South Africa (43 million). Democratic Republic of Congo (50 million) and Ethiopia (59 million) are the other very populous non-Arab states on the continent.



far the economically dominant state in the region.<sup>169</sup> Nonetheless, it is experiencing significant problems: very high unemployment rates, the highest (and still rising) crime rate in the world, and a majority of the population still in poverty. Moreover, the post-apartheid period is only six years old, and those six years were spent under the remarkable influence of Nelson Mandela. It is therefore too soon to make definitive judgments about the future. But there are also positive events and trends. South Africa is making the transition to a multi-racial democracy. A peaceful, second democratic presidential election took place in June 1999. Developments in South Africa have also aided the settlement of the civil war in Mozambique.

For the first time in many years, too, Nigeria—a country with more than three times the population of South Africa although a GDP only one-third as large—has at least a credible chance to move away from an era of pervasive corruption, human rights abuse, and economic mismanagement. Important positive developments are in the works. The newly elected president, Olusegun Obasanjo, has committed himself to breaking Nigeria's crippling cycle of corruption, to introducing fair governance practices, and to reviving the economy. His ambitious agenda includes designing and sustaining an effective federal system, balancing the interests of diverse regions with that of the central government; bringing the military under civilian control; establishing an independent judiciary; and ensuring a continued pattern of open and fair elections. He will need help from the international community, and current indications suggest that he is ready to accept it. Nigeria's oil resources are a huge potential aid, as is the cooperation of the companies that are involved in the exploitation of that oil.<sup>170</sup> If Nigeria can get on track, and has the help and good fortune to remain on track, in 25 years it

would become the economic engine of West Africa, and a benign security presence for the region as well.

In short, things may well come together. Political and economic shifts of this kind—toward democratic, market-based institutions—could potentially transform large parts of Africa over the next 25 years, providing the basis for effective integration into the global economy. The small and medium sized core states, which have already achieved a degree of democracy and made progress against corruption, can serve both as magnets for more foreign investment in Africa and as role models of successful governance and economic policies for other regional states. If South Africa continues to make strong economic and political progress, and if Nigeria can move decisively toward a more open, democratic system and a vigorous economic revival, then the prospects for this region could brighten significantly.

Crafting institutions of governance that are viewed with confidence by Africans will be a complex task. Harnessing the capabilities in this region for effective democratic institutions and free market development will depend overwhelmingly on the leadership abilities of African statesmen, civil servants, businessmen, and scholars. Strong leaders could construct effective coalitions both within the states and with other governments and international agencies. Regional role models of integrity and commitment to good governance, with effective

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<sup>169</sup> South Africa's 1998 GDP was \$306.5 billion (in Purchasing Power Parity terms), about one-third of Sub-Saharan Africa's total (of \$903 billion). The sub-Saharan African country with the next largest GDP in 1998 was Nigeria, with \$112 billion

<sup>170</sup> A short but interesting feature on Chevron's relationship with Nigeria is Norimitsu Onishi, "Deep in the Republic of Chevron," *New York Times Magazine*, July 4, 1999.

tive civilian control over the military, could be shared throughout the continent, and built upon.

One means of achieving effective information sharing is through regional and sub-regional organizations. Such groupings, particularly those with a small number of similar states in the same sub-region, provide some of the best opportunities for furthering and supporting democratic and economically liberal policies. At present, these groupings are very fragile. However, if they are reinforced by bold African leadership and by proper incentives from abroad, then the region could potentially develop into a markedly more important and constructive player in the global economy.

For the region as a whole, 4 percent real growth per year through 2010, and potentially 5 to 6 percent real growth per year from then through 2025 is plausible.<sup>171</sup> To achieve this, African statesmen and businessmen must work hard to attract and nurture partnerships with private investors—to take full advantage of what the global economy has to offer. If they can, then they will also have a real chance to stanch and even reverse the current “brain drain” of talented, educated Africans that has so seriously crippled states such as Nigeria over the last few decades. If South Africa and Nigeria make strong, steady progress in governance, stability, infrastructure development, and economic reform, then aggregate growth rates in the 7-8 percent annual range may be possible for the region. Sub-regional or even regional common markets can certainly help significantly here; they can help exploit economies of scale and provide the advantage of what amounts to a common currency.

Significant improvements in Africa’s standards of living, infrastructure, education, and health between now and 2025 will clearly be

much harder to achieve, given the increase in the number of children there will be to nurture. Africa’s population is projected to nearly double by 2025—from 620 million people to about 1.1 billion—even despite the AIDS epidemic that is sweeping through much of the continent. In that case, Africa would be almost as populous as China today. Sensible family planning, and far-reaching educational programs to facilitate such planning, thus appear to be indispensable elements in a strongly positive evolution for Africa over the next quarter century. It is not clear that such programs will be forthcoming, but the advent of good government throughout the region radically improves the chances that they will be undertaken.

For a positive future, too, the epidemics that now plague Africa need to be brought under better control. Unfortunately, AIDS, as well as a variety of other major diseases, are likely to remain major problems even in the best case for the region.<sup>172</sup> Of the 34 countries currently most plagued by AIDS, 29 are in sub-Saharan Africa.<sup>173</sup> Making significant headway will require that children as well as adults be treated on a massive scale. Strong help from international health organizations, both governmental and private, will be essential.

Central to this positive evolution will also be stemming the conflict and instability that has wracked so much of the region for too long. This instability has come in a variety of forms: intra-state crises as in Rwanda; state failures in such West African states as Sierra

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<sup>171</sup> See IMF, *Global Economic Prospects*, October 1998, p. 189.

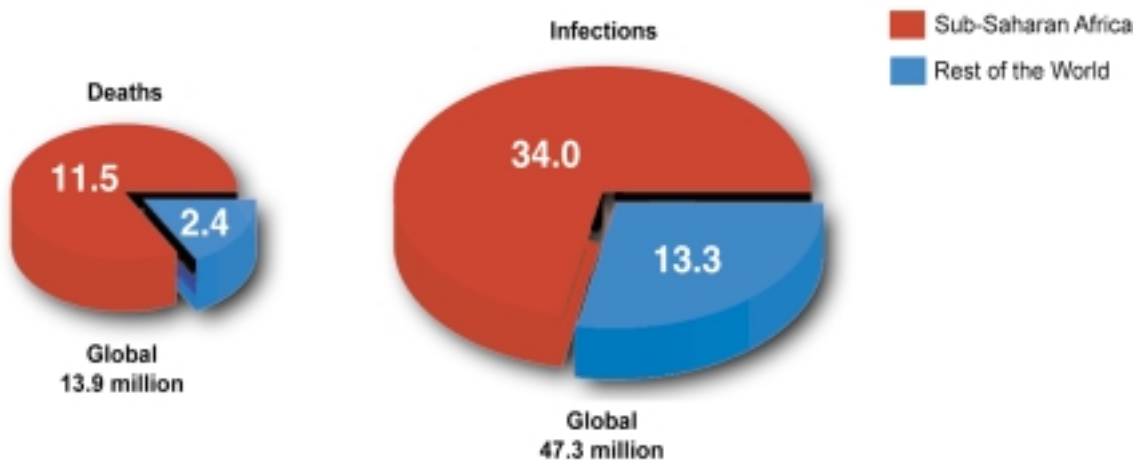
<sup>172</sup> For details, see the United Nations population figures for 1998.

<sup>173</sup> Noted in “The Demographic Impact of HIV/AIDS,” United Nations Population Division, 1998.

Leone and Liberia; and protracted civil wars, as in Sudan. Taken together, such conflicts have displaced upwards of 4 million people.<sup>174</sup> All of these types of conflict may well continue through the first part of the 21st century. Together with rising domestic crime in many states and the increasing prevalence of transnational problems such as narcotics and money laundering, they clearly pose serious security challenges to all African states. Indeed, the general problem of corruption—at the top as well as elsewhere in

political and economic foci to include security concerns. The OAU's Conflict Resolution Center, the Southern African Development Community's Political, Defense and Security Organization, and the Economic Community of West African States' operation in Liberia hold promise for promoting African solutions to regional conflicts and security concerns. Future efforts can advance intra-regional cooperation while seeking to spread positive political-economic gains throughout sub-regional areas.

### **AIDS Deaths and HIV Infections Total Cases to Date**



Source: UNAIDS, *AIDS Epidemic Update*, December 1998.

society—may be the region's most serious problem.

Progress in addressing fundamental political and social problems can help resolve the root causes of many conflicts in the region. Here, too, there have also been a number of encouraging conflict resolution initiatives—both from within the region as well as by other concerned parties—that will need to be reinforced for this positive evolution to have any real chance. Several African inter-governmental organizations have expanded their traditional

At the same time, Africa will need to be engaged with states outside the region to take full advantage of global opportunities for development and security—through bilateral relationships and constructive partnerships in international organizations. The United States has established programs such as the African Crisis Response Initiative and the new African Center for Security Studies. Such relationships can

<sup>174</sup> UNHCR, *The State of the World's Refugees: A Humanitarian Agenda* (New York: Oxford University Press, 1997), pp. 286-7.

provide a basis for strengthening trends toward democracy and economic liberalization, while providing additional forums in which to seek conflict resolution.

The overall challenges for Africa are clearly daunting. Looking out to 2025, a number of pessimistic futures are not difficult to envision. Things might not come together, but fly further apart.

Emerging patterns of democratic governance may not survive. At worst, some of these states could become havens for organized criminals and political/religious extremist groups in possession of increasingly lethal weapons.

African economic growth, moreover, will have a difficult time keeping pace with the region's rapidly growing population. Economic growth at levels around 6 to 7 percent per

### **Areas of Conflict**



One or more of the populous states in the region, especially Nigeria or South Africa, but also Kenya or Tanzania, may fail to make economic and political progress. The all too frequent conflicts in the region may persist or intensify. HIV/AIDS may not be brought under control. Soaring population growth rates may continue despite the ravages of disease.

annum will be necessary in many countries just to keep up with population growth. Thus, some of the robust figures on African economic growth in recent years are deceptive. Gross economic activity always increases with population, but it is per capita figures that matter most, and in this regard Africa's progress is far less impressive.

Such adverse outcomes would, of course, represent an enormous waste of Africa's human and natural resources. If significant headway cannot be made on many of these fronts, the United States and the rest of the world could face terrorist threats, refugee problems, an increase in organized crime, and health epidemics spilling out of the sub-continent to climes far and wide.

Perhaps the central problem that may arise in and from sub-Saharan Africa is the splitting asunder of state frontiers. Social pressures, bad government, and the spread of various transnational dangers could fracture many of the territorial states that have been basically stable since the independence period. The war in and over the Democratic Republic of the Congo may represent a major watershed for the worse in this respect. In no regional fracas before the collapse of Mobutu's Zaire has there been so much serious and varied military intervention by African states into the internal affairs of another. The interests of Zimbabwe, Uganda, Angola, and other states are so sharply at variance, and the Congo's ethnic diversity and geographical swath are such challenges to state-building, that the Congo may never come back together as a single political unit in the shape it held in 1995.

The ongoing war between Ethiopia and Eritrea is another cautionary example. Eritrean independence was achieved in unison with the Ethiopian government that overthrew the heinous regime of Mengistu Haile Mariam. But even though Ethiopia's borders were changed by consent, and even though the two leaderships professed friendship and peace toward each other, it was not very long before the two countries fell into a ruinous border war.

Events in the Democratic Republic of Congo and Ethiopia have violated the taboo against the violent changing of frontiers in Africa. This could lead to more conflict. Among those most vulnerable to ethnic conflagration and territorial reconfiguration are some major ones, including Kenya, Uganda, Senegal, Angola, Tanzania, South Africa, and Sudan—the last of which has suffered from more than 20 years of a civil war that still shows little sign of ending.

It is also possible that the examples of the Democratic Republic of Congo and Ethiopia will strengthen the will of African elites to maintain the territorial status quo, having now seen the costs of change. But if that does not happen, the weakening of respect for the existing territorial state system in sub-Saharan Africa could trigger civil wars in as many as half a dozen African states. Such strife could easily spill across borders as various ethnic groups seek to unite themselves under a single flag. Once the fighting stopped, such a reconfiguration of states into more homogeneous ethnic units could make subsequent attempts at nation-building marginally easier. But the long-term consequences could be disastrous, for elites that can more easily build nations on the basis of ethnic solidarity can also more easily take them to war against alien groups.

The humanitarian fallout from such wars would be dramatic, easily overwhelming the existing capacities of non-governmental organizations to manage them. As a world leader, the problem would doubtless queue up to the U.S. foreign policy agenda and, given the nature of American society and contemporary electronic media culture, the U.S. government would have to take up that agenda at least to some extent. This would be so even if no



concrete national interest, narrowly construed, were at risk.

Another real possibility, probably more likely than the collapse of the territorial status quo, is that the information revolution in Africa will make borders increasingly meaningless. State capacities are modest in this region, and they are unlikely to keep up with new patterns of licit and illicit commerce. The advent of mass communications in Africa will hasten the expansion of business competence far faster than the expansion of government competence. Thus, Africa is likely to be a prime example of states losing control over the levers of economic life, and having their legitimacy and longevity called into question as a consequence.

It is not at all clear whether sub-Saharan Africa's future will turn out to be bright or tenebrous. It could well be mixed, with some states achieving their goals of peace, prosperity, and cultural renaissance, while others descend into the pit of bad government and social decay. In any event, as is usually the case, the future is up to the peoples of the region, and their leaderships. In a world where regions no longer have automatic strategic significance on account of the global competition among great powers, outsiders will not make or break Africa's future. Nevertheless, the potential for cooperation is great because African states may need and warrant outside assistance, and because the Western countries could, and should, see such assistance as self-interested as well as charitable. An Africa in chaos is in no one's best interest.

### *The Americas*

The Americas—defined here as Latin America, Canada, and the Caribbean—is a region of unique importance to the United

States. The region is home to the two largest U.S. trading partners—Canada and Mexico—and the destination of over 40 percent of all U.S. exports. The United States imports natural resources from the region, including petroleum from Mexico, Venezuela, and Trinidad. Additionally, cultural ties between the United States and Latin America are strong; the United States has the fifth-largest Spanish-speaking population in the world, now some 17.3 million strong.<sup>175</sup> At the same time, the geographical propinquity of Canada, the Caribbean, Mexico, and Central America to the United States often makes the problems of one country a domestic concern for others—the United States included.

Latin America, the Caribbean, and Canada are very distinct from each other. Latin America's cultural and political roots were molded by their Spanish and Portuguese colonizers. The mix of indigenous tribes with Europeans created the social base that exists in Latin America today, but the mixing is different in different countries. Less than one percent of Costa Rica's population is made up of indigenous people, for example, but indigenous groups constitute 44 percent of the population of Guatemala, and substantial percentages also in Mexico, Peru, Bolivia, and Ecuador.<sup>176</sup>

In contrast, the Caribbean islands trace their roots primarily to English, French, and Dutch colonizers, and also to the institution of slavery as practiced by Europeans from the 17<sup>th</sup> through the early 19<sup>th</sup> centuries. Parliamentary systems are the norm in the Caribbean and, unlike Latin America, the

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<sup>175</sup> The number of Hispanics in the United States is even larger—22 million—but not all Hispanics, a catchall term meaning those whose forebears came from Spanish-speaking countries, speak Spanish.

<sup>176</sup> *CIA World Factbook*, 1998.

primary language is English. Canada also has a parliamentary system based on British traditions.

**I**n the last 20 years, Latin America has undergone profound transformations. All of the 35 countries in the region have democratically elected governments, with the exception of Cuba. Free market economics

has replaced protectionism in most countries as the chosen path for long-term economic growth, a major shift in attitude from two decades ago. Steps have been taken toward economic integration, most notably through the Southern Cone Common Market or Mercosur, whose members are Brazil, Argentina, Paraguay, and Uruguay. This has earned the region much respect from in-



vestors worldwide; some \$40 billion per year, on average, entered the area in the 1990s.<sup>177</sup> Human rights abuses in the region have been significantly curtailed, and several insurgencies in Central America have been ended by negotiation. Armies have for the most part stayed in their barracks, another shift in historical patterns. In short, Latin America has gone far in transforming itself from an area dominated by authoritarian regimes with closed economic policies into a model of progressive political and economic development.

Despite these positive trends, many Latin Americans have yet to see the fruits of change. Income disparities in the region are the greatest of anywhere in the world. A quarter of all national income is in the hands of 5 percent of the population, and the top 10 percent absorb 40 percent of the wealth.<sup>178</sup> The poorest 30 percent of the population receive only 7.5 percent of national income, and only a small middle class exists in most countries.<sup>179</sup> Social conflict between native populations and those of European origin is endemic in many countries, including Bolivia, Colombia, Ecuador, Nicaragua, Mexico, Peru, Guatemala, Honduras, and Brazil.

Meanwhile, violence and crime are pervasive. The region also suffers from high levels of governmental corruption and graft. With economic growth uneven in most countries, the possibility of economically failed states—states that cannot reliably provide rudimentary services and that default on their international obligations—cannot be ruled out over the next 25 years.

Perhaps most important, Latin American democratization is still fragile, except in Chile, Costa Rica, and Uruguay. The rule of law, respect for basic civil liberties, the existence of mass-based political parties, the de-politiciza-

tion of military institutions, and the rights to free speech and organization are still tender shoots in many of the area's formal democracies. A sign of this fragility is the difficulty that free media have had conducting objective political polling in many countries.<sup>180</sup> The citizenry in many Latin American countries have not become fully comfortable with the attitudes, the "habits of the heart," that ultimately undergird a democratic polity.

Notwithstanding this mixed situation, the Americas will be an increasingly important region for the United States over the next two decades. U.S. trade and investment will increase. Latin America and the Caribbean are projected to have over 690 million people by 2025, roughly twice the size of the European Union. An OECD study projects growth rates for Brazil's economy as high as 5.6 percent over the next 20 years.<sup>181</sup> Should this projection prove accurate, Brazil will emerge as a major global economic power, with a GDP roughly equivalent to Japan's today. In addition, U.S. cultural ties with Latin America will grow stronger in the coming decades. In 2025, the Hispanic population in the United States will be the largest minority group in the country.

What, then, will the future hold for the Americas, and how will that future affect the United States? Four factors will be most critical: how the economies of the major

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<sup>177</sup> Figure cited in Abraham Lowenthal, "Latin America in a Time of Global Financial Turmoil," March 1999 (unpublished draft).

<sup>178</sup> Inter-American Development Bank Report, *Economic and Social Progress in Latin America: Facing Up to Inequality in Latin America* (Washington, DC: 1998), p. 1.

<sup>179</sup> Ibid.

<sup>180</sup> See here Humphrey Taylor, "Pollution," *The National Interest*, No. 51 (Spring 1998).

<sup>181</sup> Projections based on data in OECD, *The World in 2020*.

players fare in the context of the new global economy; whether liberal democratic and free market principles prevail; how Mexico and Brazil evolve politically; and what role the United States plays. We take these in turn, looking at both optimistic and pessimistic possibilities.

Recent trends suggest that Latin America will enter the 21st century from a positive economic base. Reforms initiated as a result of the region-wide debt crisis of the 1980s have resulted in greater fiscal and monetary discipline, lower inflation, a compressed public sector, and diminished barriers to international and regional trade. If the region can sustain annual growth rates of 6 percent, as some observers have projected, its countries will be better able to address widespread poverty, poor educational and health systems, and other problematic social conditions.

Latin America has a demographic “window of opportunity” with which to attain these goals. Fertility rates are dropping and population growth rates are decreasing. Between 1995 and 2025, average annual population growth rates are projected to fall from 1.73 percent to 1.07 percent in Mexico, from 1.33 percent to 0.76 percent in Brazil, and from 2.71 percent to 1.41 percent in Honduras.<sup>182</sup> As a result, the number of working age people will rise in proportion to the number of children. A shrinking youth bulge, a larger work force, and a yet-to-have aged population suggest a smaller financial burden on state resources and the chance to accumulate domestic capital needed to finance education and other social projects.

The prospects for expanding free trade are also good, particularly given the importance of international commerce in the region.<sup>183</sup> Trade

accounts for over 40 percent of Mexico’s GDP and over 50 percent of Chile’s.<sup>184</sup> Both the Central American Common Market (CACM) and the Caribbean Common Market (CARICOM) have shown interest in strengthening their ties with NAFTA, which could lead to their accession to the trade pact. The United States, Latin America, the Caribbean, and Canada have already agreed on a concept of a Free Trade Area of the Americas. Mercosur will probably add new members over the next 25 years.<sup>185</sup>

Hemispheric free trade is also progressing on a bilateral basis. Chile has free trade agreements with nearly every country in the Americas, including Canada. Mexico has negotiated a number of free trade agreements in addition to NAFTA, including ones with Costa Rica, Chile, Venezuela, and Brazil.

Since successful trade associations have often been associated with positive political outcomes, an Americas region tied together by free trade might also cooperate effectively in dealing with other transnational issues such as drugs, crime, and the environment. Also, regional economic interdependence might lessen the possibility of interstate conflict, although history is replete with cases where this has not happened.

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<sup>182</sup> The World Bank, *World Development Indicators 1998*.

<sup>183</sup> Knight Kiplinger, *World Boom Ahead: Why Business and Consumers Will Prosper* (Washington, DC: Kiplinger Books, 1998), pp. 94-8.

<sup>184</sup> 1996 figures. Trade accounts for 75 percent of Canada’s GNP.

<sup>185</sup> The other regional associations are the Andean Group (Bolivia, Colombia, Ecuador, Peru, and Venezuela) and the Central American Common Market (Guatemala, Honduras, Nicaragua, El Salvador, Panama, and Costa Rica).

In addition to trade integration, the Americas will experience greater monetary integration. Proposals for dollarization are being debated by the public and/or private sectors in Argentina, Mexico, and El Salvador. Currently, Latin Americans hold a majority of their savings in dollars, and 70 percent of banking assets and liabilities are dollar-denominated in Argentina, Bolivia, Peru, and Uruguay.<sup>186</sup> While dollarization is likely to be hotly debated both domestically and abroad, global trends indicate that a regional currency bloc is a strong possibility by 2025. If a currency bloc in Latin America does emerge, it could prove to be a strong source of economic stability and help further unify the region.

**H**urdles to the region's positive economic future should not be underestimated, however. The most important is the prospect that globalization will widen social divisions and abet economic polarization. Existing class divisions in most Latin American countries could be increased. The rich and well placed would be in a position to acquire the knowledge-based skills, the technological devices, and the international contacts that would propel them into the world of cyber-prosperity. Meanwhile, the majority of the population would remain in the barrios, getting poorer and more distant from the opportunities of the early 21<sup>st</sup> century. This is a formula for social and political upheaval, and hence, ultimately, for economic instability as well.

Even more daunting, sharp income differentiation divides many Latin American states along cultural lines. Many of the rural poor in Latin America are members of indigenous groups who remain largely outside the political spectrum and represent a large portion of the population in countries such as Bolivia, Peru, Mexico, Guatemala, and Ecuador. Whether these groups are incorporated into the political

and economic mainstream will help determine if stability or conflict characterize these societies in the future.

On a different level, many countries in the region depend heavily on commodity exports, and in some cases on only a single commodity. The volatility of the commodity market leaves these economies vulnerable to the whims of the global economic environment. Moreover, many countries lack the resources necessary to move beyond a commodity-based economy and are unlikely to develop them over the next 25 years.

Second, the region suffers from a scarcity of capital and is likely to remain significantly dependent on external sources of capital over the next 25 years. This dependency is aggravated by the fact that the bond rating agencies do not give most states in the region high marks. The more positive climate for business that is developing in Argentina, Uruguay, Bolivia, Peru, Ecuador, Panama, El Salvador, Costa Rica, and Chile has improved their economic freedom rankings over the last five years. Higher bond ratings may well follow.<sup>187</sup> Nevertheless, while sound fiscal policy is producing somewhat higher rates of domestic savings, these rates are not likely to increase significantly. Moreover, any increases in income will tend to go toward relieving the burdens of protracted sacrifice rather than to capital savings.

Third, most Latin American countries are saddled with inefficient tax structures and high rates of tax evasion. Therefore, the region's economic future will partly be determined by its success in broadening the tax base and improving collection.

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<sup>186</sup> David Ignatius, "Dollarization in Latin America," *Washington Post*, April 28, 1999, p. A25.

<sup>187</sup> Kiplinger, *World Boom Ahead*, p. 95.



Finally, in order for national and intra-regional trade in Latin America to flourish, the region will need to develop a more effective transportation infrastructure. Good roads are in short supply; many of them are so rough that large trucks and automobiles cannot drive on them during the long rainy season. There are few trains connecting interstate trade centers and, as a result, Latin American producers often have difficulty getting their goods to market. New projects take time and cost much money, and even the seemingly successful ones, such as the Hidrovia waterway involving mainly Argentina, Uruguay, and Brazil, churn up opposition and many opportunities for graft. It is also the case that, as with other parts of the Latin American economy, infrastructure investment relies heavily on foreign money.

The next 25 years will determine whether Latin America's march toward democracy is successful or not, and the consolidation of democracy is probably the most important overall determinant of the region's prospects for security and stability. The relationship between democratic governance and economic growth is complex. In the case of Latin America, its prosperity may well be connected to the capacity of its countries to open themselves to the world economy. That is because international best practices tend to reward accountability, transparency, and consistency—all hallmarks of democratic rather than authoritarian governance.

One important sign that Latin American democracy may prosper in the years ahead has been the transformation of military institutions. Many military leaders in Latin America have donned civilian clothes and turned to electoral politics in order to wield legitimate power, which is a long way from the strongman (*caudillo*) style of the past. The military itself has shunned intervention over the last decade

and has typically left matters under civilian control. They have accepted post-transition defense reforms and budget cuts. They have adopted new roles, including participation in peacekeeping operations. The border between Ecuador and Peru, for example, is monitored by a multilateral peacekeeping force that includes soldiers from Argentina, Brazil, and Chile. In short, most Latin American military leaders have come to understand the importance of maintaining a democracy in order for their country to be an accepted and respected member of the international community.

The democratization process has also been effective in reducing conflict in the region. It has facilitated the peace process in Central America by enabling former guerrillas in El Salvador, Nicaragua, and Guatemala to use politics as a means to voice their concerns. Gross human rights abuses committed under closed, authoritarian regimes have been significantly reduced as democratically elected governments have chosen dialogue with opposition groups over repression. Aside from a limited war between Ecuador and Peru, the continent has been at peace ever since its democratic turn accelerated in the 1980s.

Latin American militaries will not likely be called upon to save their countries from aggressive neighbors in the future. On balance, major interstate conflicts are unlikely over the next 25 years. Border problems may still lead to tension and even small skirmishes, as we have seen in the recent past between Ecuador and Peru. But the chances for such conflicts are dwindling, symbolized by the fact that Argentina and Chile finally managed in the spring of 1999 to demarcate their border to mutual agreement after more than a century of dispute. For the most part, too, any such border problems will not be traditional conflicts over territory as such, but

rather over water rights, pollution, and migration issues.

As a result, the major security threats to regional states will generally not be from their neighbors, but rather from domestic insurgencies, drug trafficking, organized crime, and natural environmental disasters such as hurricanes and earthquakes. These natural disasters, of course, are exacerbated by human foibles: deforestation and excessive building in flood-prone areas. But except for natural disasters, progress on the economic front and strong democratic institutions will be more important for addressing these challenges than military forces.

Defense budgets will probably continue to fall in real terms and as a percentage of GNP.<sup>188</sup> In some cases, these budget trends will make significant military modernization impossible. Weapons of mass destruction programs are also very unlikely to commence. In the 1980s and early 1990s, Brazil and Argentina eliminated their nuclear programs and no other state (except for Cuba) is even suspected of wanting to develop weapons of mass destruction of any kind.

Unfortunately, not all signs are positive for the development of democracy. If Latin American engagement in the global economy widens inequalities, democracy could fall before the deepening of oligopoly as vested elites try to protect themselves from change. Or democracy could fall before a potentially violent populism that would reverse market reforms, and whose own respect for democratic norms is shallow.

Venezuela may provide a test case. The current president, elected as a populist in December 1998, promised to widen the country's political system to include those

beyond the tight, if formally democratic, elite that has run the country since 1960. But his own democratic credentials are unclear, and his sympathy for protectionist economic policies is well known. It is still unclear whether he is trying to consolidate power in order to bring the fruits of democracy to all of Venezuela's people, or to re-establish authoritarian rule under his own fist.

Perhaps the most vexing challenge to the development of Latin American democracy, as well as society as a whole, is the proliferation of crime, corruption, and illegal drug trafficking. In countries such as Colombia and Mexico, organized crime groups have penetrated the upper echelons of government. Corruption in Latin America stems mainly from the practice of clientelism, an historic patron-client relationship where some members of the elite obtain public office by trading promises of patronage and largesse. Consequently, some state officials often accept bribes or promotions as common to doing business, a practice that tends to misallocate resources and to undermine the legitimacy of state institutions. Latin American drug cartels have turned drug trafficking into a profitable and highly developed industry, netting them hundreds of millions of dollars a year. While Latin American politicians acknowledge the gravity of these problems, many Latin Americans view their governments as apathetic and ineffective in combating these threats. The result in the future could be social unrest, a greater centralization of government control, and even calls for strong presidents to rule by decree.

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<sup>188</sup> See Stockholm International Peace Research Institute, *SIPRI Yearbook 1998: Armaments, Disarmament and International Security* (Oxford: Oxford University Press, 1998), p. 214.

The United States has an interest in Latin America as a whole, but two countries are especially critical: Brazil, because it is so large, and Mexico, because it is so close.

Brazil is responsible for approximately 40 percent of Latin America's total GDP. A deep and prolonged economic recession in Brazil would have serious effects on the regional economy, especially for its Mercosur trading partners. Even in the more positive future, several factors may obstruct Brazil's achieving the economic success many have predicted for it: deeply entrenched vested interests within state and federal levels of government that complicate economic policymaking; the potential for monetary instability; dependence on external capital; and the worst distribution of income of any nation in the world.

While Brazil has moved to correct these problems and is likely to make much progress over the next 25 years, investor confidence could still plummet, sending Brazil's economy spiraling downward as foreign and domestic investors shift to lower-risk environments. First, doubts persist about the viability of Brazil's banking system. Second, the Brazilian economy could stumble if the privatization of state-owned enterprises either falters or fails to increase industrial efficiency and global competitiveness. Third, poor exchange rate policy could result in an overvalued real. Lastly, the richest one percent of Brazilians control nearly half the land; land reform is critical, but it is by no means clear that it will occur.<sup>189</sup>

Furthermore, Brazil's economic stability is dependent on market perceptions, given its high level of dependence on external capital to finance its current account deficit.<sup>190</sup> If investors lose confidence in the Brazilian economy, it could provoke a serious economic crisis. Excessive capital flight could force

Brazil to devalue the real and raise interest rates. Credit could then dry up, limiting investment and forcing the economy into a recession. Steep interest rates would increase the number of non-performing loans and could push the banking sector to collapse. The hardest hit would be the poor and the middle class, destroying the ability of the latter to generate the domestic savings necessary to reduce Brazil's dependence on foreign capital. A severe economic downturn in Brazil is a real possibility, well within 25 years.

Extended negative GDP growth in Latin America's largest economy also would have region-wide repercussions. Lack of investor confidence in Brazil would likely result in less investment for all Latin American countries as domestic and foreign investment seeks safer havens. This could result in a region-wide recession, which in turn could affect American commercial ventures in Latin America and reduce U.S. exports to the region.

In sum, Brazil's economic well-being remains a key question mark over Latin America's future, and would affect U.S. economic well-being, too. If the country is able to perform to its potential, it can help drive the region toward a more prosperous future. If the Brazilian economy falters, the entire region will suffer the consequences.

Mexico has made many economic and political strides over the past two decades. It has replaced its import substitution industrialization strategy with free market oriented policies, culminating with its accession to NAFTA in 1994. Additionally, its

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<sup>189</sup> Allen Hammon, *Which World? Scenarios for the 21st Century* (Washington, DC: Island Press, 1998), p. 131.

<sup>190</sup> According to World Bank figures, Brazil's current account deficit in 1996 was \$24.3 billion before official capital transfers.

political system has gradually liberalized, becoming more pluralistic and competitive. Both of these developments have made Mexico's economy more robust, as demonstrated by its successful weathering of the recent Asian and Russian financial crises.

Nevertheless, Mexico remains vulnerable on several fronts. The economy is not solid. It will take years to develop a well-regulated banking sector, as a result of the careless lending that preceded the 1995 debt crisis. Like Brazil, Mexico's financial well-being is also highly dependent on external capital. Furthermore, its fiscal stability is overly dependent on the world oil market. As a result, a number of internal weaknesses and external shocks could cause severe economic difficulty for Mexico over the next 25 years.

Mexico could also face acute political instability, either through an over-centralization or a decentralization of power. For the past 70 years, power has been centralized within the presidency under the control of the PRI (*Partido Revolucionario Institucional*). In the 1990s, Mexico moved toward a multiparty democracy, with opposition parties winning a number of state governorships and control of the lower house of the national legislature. But the PRI has not relinquished the Presidency since it took power in 1929. While some other party might win a presidential election, the ruling party is still strong and, faced with political defeat, it could execute an internal coup—an *autogolpe*—to keep itself in power. That may have already happened once: many Mexicans believe that Carlos Salinas stole the 1988 presidential election from Cuauhtémoc Cárdenas.

If the PRI were to hijack a future national election, the sizeable and well organized opposition that has developed in recent years could

mount widespread and effective protests. That could seriously strain U.S.-Mexican political and economic relations. If the cycle of protest and repression were to get out of hand, it could send many more Mexicans across their northern border than are liable to come anyway.

On the other hand, and probably just as likely if not more so, democratization could continue on its current path, with more power devolving from the executive to other federal branches and the states. Given Mexico's heterogeneous character, such a devolution could eventually result in the country's break-up. State governors might take on greater responsibilities for providing public services and domestic security. While not very likely, Mexico might even split into northern and southern parts. Today, the income generation of the northern border states largely subsidizes the poorer southern states. If the northern states gained more control over their tax dollars, it is possible that they would be less interested in shouldering the economic burden of their southern brethren.

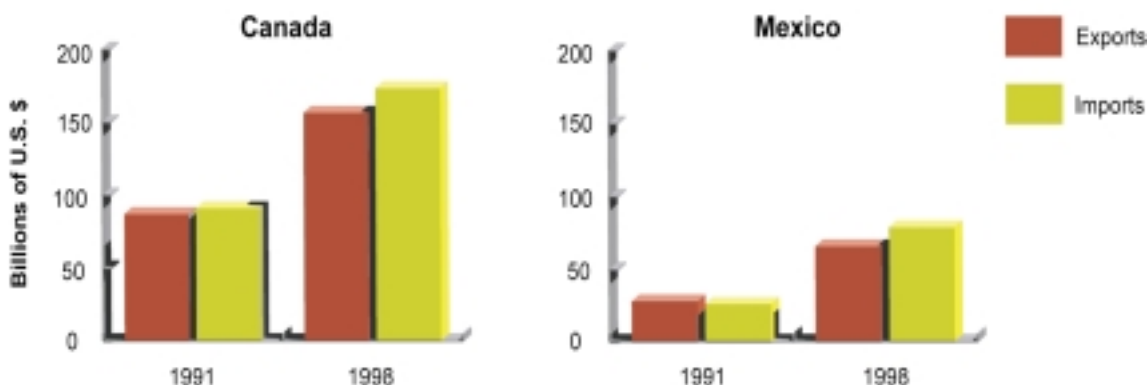
Another closely related realm of potential instability is social in nature. Mexico has one of the highest measures of income inequality in Latin America and has already faced a number of uprisings in the largely rural southern states of Chiapas, Oaxaca, and Guerrero over poor standards of living, lack of job opportunities, and government disinterest in the well-being of peasants and indigenous peoples. Urban unrest is also a possibility as more people move to the cities and frustrations mount because their rising expectations cannot be met. The combination of a restive rural and urban population that perceives the federal government as failing to meet its economic needs or provide sufficiently for its personal security, could be a volatile mix.<sup>191</sup>

Clearly, the United States cares deeply about acute instability to its immediate south. Mexico is the second largest trading partner of the United States, and economic chaos there would depress American exports. Profits of the numerous commercial ventures in Mexico would shrink. Economic or political instability in Mexico would increase pressures for more migration to the United States and evoke American resistance in many forms. Moreover,

American States. But such an extreme contingency is very unlikely over the next 25 years.

Finally the role of the United States will be important to how this region develops in the future. Latin America will not be a major strategic-military concern, but the political and economic future of the region will matter a great deal. The United States will care as to whether free trade and democratic institu-

### **U.S. Trade with NAFTA Increasing**



Source: U.S. Census Bureau, U.S. Trade in Goods and Services - Annual Revision for 1991-1998, May 1999.

Note: NAFTA went into effect Jan. 1, 1994.

lack of political control and economic hardship would also encourage the drug trade to flourish, along with other criminal enterprises, and would certainly infest the U.S.-Mexican border region with crime and violence.

Political, economic, and social instability in Mexico would arguably be the most serious national security threat to the United States that could emanate from Latin America. Given Mexico's size, such a debilitated environment would be difficult to contain and could even raise the specter of a U.S. military intervention in tandem with the Organization of

tions survive. It will also wish to avoid any major polarization between the northern and southern parts of the hemisphere.

There are several ways free trade could be threatened. If global economic integration comes unstuck and a prolonged economic meltdown occurs, Latin American leaders

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<sup>191</sup> The number of crimes reported to the police grew 36 percent from 1994 to 1995 and 14 percent more in 1996, but most crimes in Mexico go unreported. See "A Stain Spreads Across Latin America," *Los Angeles Times*, April 25, 1999.



might look inward for economic growth, adopting protectionist economic policies to shield their countries from external threats. A protectionist regional policy could also emerge as a result of growing popular resentment to external prescriptions for the region's ailing economies. Many of the IMF and World Bank policies include politically unpopular measures such as cutting subsidies and improving tax collection practices. Or South American leaders could become increasingly disenchanted with U.S. trade policy, and shift their trading links to Europe. Currently, over 27 percent of Mercosur's exports go to Europe. Imports from the European Union to Mercosur increased 104 percent between 1993 and 1996—32 percent more than imports from the United States.<sup>192</sup>

There is also a broad political route to trouble. Inward looking economic policies could emerge as a result of weak economic performance over a prolonged period of time, bolstering the notion that free market trade policies hinder rather than promote income equality and poverty reduction. At a popular level this view could generate support for political candidates who adopt less globalist and more protectionist platforms.<sup>193</sup>

Resentment against neoliberal policies could be channeled through the political system and outside of it. Radical political parties might develop more support and polarize a political landscape generally dominated by two elite parties. These radical parties might also have military arms much akin to IRA or the ETA, which have committed terrorist attacks to attract public attention. Popular anger toward the state could also be channeled outside the political spectrum through armed guerrilla movements. Increasing financial and popular support for new and existing guerrilla groups could foment violent attacks against the state and civilians alike.

Such instability would create an opportunity for nationalist political leaders. Such aspirants will likely be populist, guaranteeing tangible results, while also appealing to Latin America's traditional sense of personal politics. Even today, populism has shown a resurgence in Venezuela, where Hugo Chavez utilizes referendums, social promises, and a packed constituent assembly to govern.

The election of a nationalist Latin American president under such circumstances could have an important economic side effect. Whether for domestic political reasons or simply a desire to change economic directions, populist leaders might pursue protectionist economic policies to shield themselves from U.S. and world influence. That could significantly reduce trade between Latin America and the United States, Europe, and Japan.

Relations between the United States and a protectionist Latin American country (or sub-region) could become particularly strained. Latin American leaders would reduce ties to the United States and other developed countries to placate domestic political opinion. The lack of economic cooperation could also hamper cooperation on immigration, drugs, pollution, and other transnational issues.

The most likely area where such negative developments could occur is the Andean region. Today the Andes is one of the most economically depressed areas of South

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<sup>192</sup> Sam Laird, "Mercosur: Objectives and Achievements," World Trade Organization paper, May 23, 1997.

<sup>193</sup> In brief, populism has led to economic failure in the past for Latin America mainly because the state did not have enough revenue to support service-driven political policies. A single country could not implement these sorts of policies if capital inflow dried up and loans were not available. It is conceivable, however, that this capital could come from the growing regional trade now taking place.

America. If poverty and social inequality continue at the current pace, by 2025 the Andean region could be wracked with violence, corruption, and instability. In the last 40 years, guerrilla movements have been prominent in the region, including an insurgency in Bolivia led by Che Guevara, and, more recently, the activities of the Sendero Luminoso and Tupac Amaru in Peru.

Given the rough terrain and poorly guarded frontiers in the region as a whole, there are few constraints on guerrilla movement back and forth across state borders. That raises the possibility of non-state actors re-aggravating historical grievances and sparking a broader regional conflict. The fact that armed guerrillas in Colombia have already violated the border with Panama and Venezuela illustrates the problem. Additionally, it is possible for a populist government, elected through democratic means, to evolve into an authoritarian regime as a result of societal stresses and a general loss of confidence in democracy.

An uncooperative relationship between the United States and Latin America could arise not only from poor economic performance, but also due to resentment stemming from U.S. political and economic policies in the region. Leaders in Peru, Bolivia, Ecuador, Colombia, or the Caribbean could become increasingly frustrated with U.S. drug policies. Combined with popular nationalist sentiment, this frustration could produce a widespread anti-American attitude. Countries like Chile could also exude an anti-American position due to its mounting frustration with U.S. economic policies. A powerful South American economic pact might even put its principal members in a position to demand political and economic concessions from the United States, and to threaten to take its business to the EU if Washington demurs.

Finally, a few words about the Caribbean and Canada.

The states of the Caribbean are, for the most part, very different culturally from Latin America. Except for Cuba and the Dominican Republic, Spanish is not the language of most of its lands. Their economies are small, as is the size of most countries' land masses, and their resources are generally scant—save for oil in Trinidad. Democracy is widespread but often fragile, and population and social pressures are many and growing. Also, the Caribbean is unique in that a few of its islands are still ruled as colonies of France, Great Britain, and the Netherlands.<sup>194</sup>

For the most part, this nearby area of the world poses non-traditional security problems for the United States. One concerns illegal immigration and another the role of the islands in the drug trade and money laundering. If there is reason to worry about criminality overwhelming relatively large states such as Russia or Nigeria, there is even more reason to worry about the Caribbean, where government capacities are small relative to the syndicates they sometimes face. There is even a question of fundamental viability for many of the smaller island states in the region, and this is reflected in the growing number of shiprider agreements that have been negotiated with the United States. Such agreements allow local officials to board U.S. Navy or Coast Guard vessels operating in their own territorial waters against smugglers and thieves—to deputize

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<sup>194</sup> Specifically, French possessions in the Western hemisphere are Martinique, Guadeloupe (and, much farther north, St. Pierre y Miquelon); the Dutch include Aruba and the Dutch Antilles (Curaçao, Bonaire, Saba, St. Eustatius, and part of St. Martin); and the British possessions are the Falklands, Montserrat, the Cayman Islands, Anguilla, Bermuda, the Turks and Caicos Island, and the British Virgin Islands.

them, so to speak.<sup>195</sup> There are also gangs from various islands residing in the United States who are used by friends at home to smuggle goods and launder money.

Haiti is a special problem. Its condition is poor in almost every regard, and that is despite marked improvement since the end of the Duvalier era. Political violence and related immigration pressures could recur at any time, and the likelihood that they will sometime in the next quarter century is high.

Cuba is a special problem, too, but in a different way. Haiti and Cuba have in common the fact that their difficulties get translated into U.S. domestic, not foreign, politics thanks to sizeable émigré communities resident in the United States. What happens in Cuba over the next 25 years will not have dramatic national security implications for the United States. There will be no foreign military bases on Cuban soil, no fearsome Cuban weapons program, no export of venomous anti-Americanism from a revived, post-Fidel communist vanguard. But the country is a political lightning rod, not just because of pressures from the Cuban-American community, but also because of Cuba's emotional Cold War legacy.

Various scenarios are possible. Raúl Castro, Fidel's brother and leader of Cuba's armed forces, is Castro's heir apparent. He would likely rule indirectly by selecting a pliable civilian to run Cuba's daily affairs, while he maintained control over the country's military and internal security forces as well as the levers of economic power. Cuba's atavistic Communism would probably evolve into some form of "institutionalized communism" without ideological pretense or energy. It would become a one-party authoritarian state, not unlike China and Vietnam, that would be

prepared to expand further its economic and political ties with the international community.

But Raúl may not succeed Fidel, and in this case, post-Castro Cuba could fall into a bitter power struggle between traditionalists and its would-be reformers. Although the length and intensity of such a struggle is uncertain, it would engender short-term, and possibly longer-term, instability. Organized criminal groups could take advantage of such instability to establish themselves on the island, using Cuba as a base for immigrant and narcotic smuggling to the United States. If the reformers were to come out on top, the prospects for democratic politics in Cuba would rise, even in a struggle fought ostensibly over the proper path to socialism. But such a struggle could lead to economic collapse, social violence, and massive, panic-driven attempts to emigrate on the part of tens of thousands of people. The Florida Straits would once again become a mixed scene of misery and heroism, and the United States could be forced once again to take action.

A third post-Castro Cuba envisions Cuba's expatriate population in the United States taking control of the island. But this would not happen easily, and it is on balance unlikely. The Cuban population of the United States that has its eyes and heart set on ruling Cuba after Fidel came largely from the pre-Communist elite. While most Cubans are less than thrilled with Communism, they do not remember the Batista dictatorship and those associated with it with fondness either. They consider those who left to be something less than fully patriotic, battle-scarred, and worthy of political power. To the extent that the expatriot community appears powerful in the context of a post-Castro Cuba,

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<sup>195</sup> See Elliott Abrams, "The Shiprider Solution: Policing the Caribbean," *The National Interest*, No. 43 (Spring 1996).

it may even convince various factions in Cuba to avoid exploitable divisions.

As for the rest of the region—the islands—it is possible that state failure and colonial fatigue in London, Amsterdam, and even Paris will enjoin the United States to take a more active security role in the region than it does now. Even the U.S. acquisition of territory as well as responsibility by mutual consent cannot be ruled out. Since the Danish Virgin Islands were sold to the United States in 1918, the political status quo of the region has not changed from a strictly U.S. perspective. While not very likely, in the next 25 years it just might.

The same might even be the case with regard to Canada. It is alarming to contemplate, but within 25 years the Canadian confederation might collapse. It is not only the issue of Quebec that might cause such a thing, although it is the most likely catalyst.<sup>196</sup> Despite different political traditions, the western provinces of Canada are already more closely attached, economically and even culturally, to their cousins in the western United States than they are to Canada's eastern provinces. Vancouver is pulled in many ways more toward Seattle, as well as to Tokyo and Hong Kong, than it is toward Ottawa.

Canada's breakup, which even many Canadians concede is possible, could send strong shock waves through the United States. After all, there is no society in the world more like our own than Canada's, and its dissolution may add fissures to American solidarity. Already westerners of both countries speak about the "imperial capitals" in Washington and Ottawa. While unlikely, it is at least possible that British Columbia, Alberta, and Saskatchewan might become part of the United States within 25 years.<sup>197</sup> Perhaps as likely, if not more so, the

poorer eastern maritime provinces of Canada—Nova Scotia, New Brunswick, and Prince Edward Island—might seek such a course out of a mix of desperation and self-interest. And unlike some small Caribbean islands, which have few significant natural resources, Canada has large fossil fuel deposits, rich minerals, fisheries and timber preserves, and, perhaps most valuable of all, about 20 percent of the world's fresh water resources. Given the stakes involved for the United States, it is a matter worthy of some serious thought.

It is, of course, very unlikely that any U.S. government would seek such an outcome. It is a long way from 1812, and if the United States has a best friend, and a partner in spirit as well as basic interest, it is Canada. Canada is most likely to cohere and to prosper, and because it does some things differently from the United States, it may serve as a most helpful mirror for us in many policy areas. The likelihood that the United States and Canada would further coordinate foreign and security policy over global humanitarian and environmental issues of mutual interest is also very high.

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<sup>196</sup> Technically, this is already the case, for Quebec never signed the 1982 constitution.

<sup>197</sup> Perhaps Manitoba, the Yukon, and the Northwest Territories, too. The combined population of British Columbia, Alberta, Saskatchewan, Manitoba, the Yukon, and the Northwest Territories is about 9.3 million.

### III. The U.S. Domestic Future

The United States will likely remain the most powerful country in the international arena over the next quarter century, and it will be bound to the rest of the world through a web of political, cultural, technological, and economic ties. Hence, the future U.S. domestic environment will ineluctably influence the world around it, just as events outside U.S. borders will affect the environment here.

America, then, will be in and of the world, but which America? Who will we be? What will we want as a nation, for ourselves and for others? Will we have the means, the social cohesion, and the requisite leadership to achieve our aims?

Analyzing the impact of future domestic conditions on U.S. national security is a formidable undertaking. While some of the domestic determinants of national security are obvious—economic capacity, for example—others are more subtle and difficult to measure. A lack of social cohesion, for example, would affect national morale and, ultimately, the economic performance of the country, as well. Changes in deeper values and attitudes could affect the willingness of Americans to sacrifice for national goals. As always, too, public opinion will play a role, and here the evolution of the American media culture in shaping that opinion is obviously relevant.

This latter issue, which amounts to forecasting the popular will at any given moment some years hence, is notoriously difficult to handle. While values and attitudes change only slowly, public opinion over particular issues or courses of action can oscillate abruptly in response to unforeseen events. If history and experience are any guide, it surely will oscillate, because in the future no less than in the past, American society will experience any number of shocks and surprises.

The sensible place to begin a forecast of the American domestic future is by examining the demographic, social, technological, economic, and political trends emerging today. What follows is such an examination, tempered by an awareness of possible discontinuities. That examination is followed, in turn, by a brief discussion highlighting the key trends affecting U.S. national security.

#### *Social Trends*

Some aspects of social change are more predictable than others, and the elemental point of departure for examining social reality is thus usually the demographic one. This is because people form political communities, and their numbers and nature are crucial to any forecast about those communities.

The central datum about the American population is that it is expanding and will continue to grow over each of the next 25 years. This may seem a banal statement, but it is not, for most other advanced societies will experience stable or diminishing populations during the same period. Today, the American population numbers about 273 million; by 2025 it should grow to some 335 million.<sup>198</sup>

The growth of the American population has important economic implications, one of which concerns the aging of the nation. Between 1990 and 1998 the median age of Americans rose 10 percent to a record high of 35.2.<sup>199</sup> By 2025, the national median age will rise another 10 percent if life spans follow recent trends—though medical advances could raise the median even higher.<sup>200</sup>

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198 U.S. Bureau of the Census, International Data Base at [www.census.gov/ipc/www/idbprint.html](http://www.census.gov/ipc/www/idbprint.html).

199 "Americans' Median Age Is 35.2, the Highest Ever," *New York Times*, June 15, 1999.

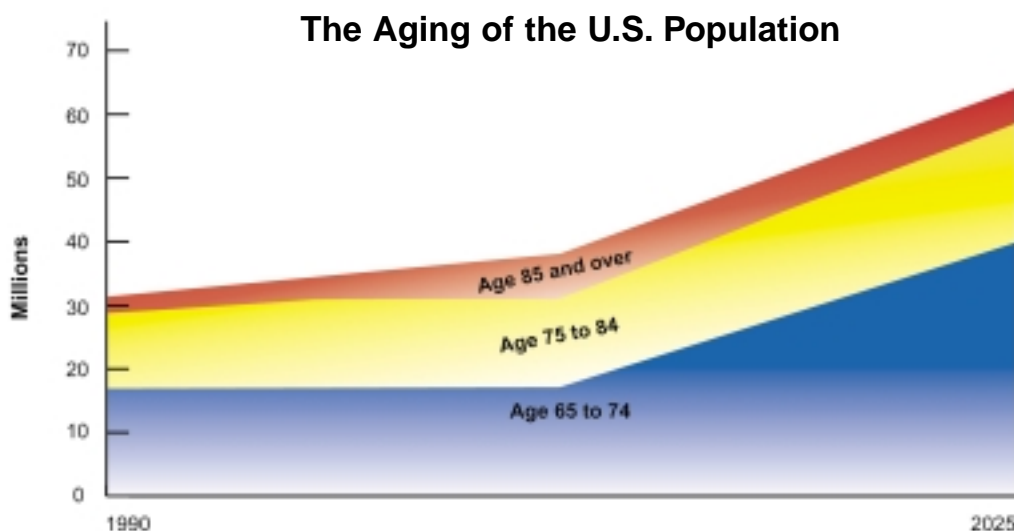
200 "Global Aging in the 21st Century," U.S. Bureau of the Census (Washington, DC: U.S. Department of Commerce, December 1996).



While the United States will be the last of the developed nations to experience the aging of its population, by 2025 nearly 18 percent of all Americans will be over the age of 65.<sup>201</sup> As a result, the ratio of those in the workforce for every person receiving retirement benefits will drop to about 2.3 to 1 from 3.9 to 1 in 1995.<sup>202</sup>

eligible for Medicare, and by 2030 Medicare will be the primary insurer for one out of four Americans.<sup>205</sup> As the country ages, costs for health care will constitute an increasing fiscal burden and will stand in competition with other spending, including spending for defense and foreign policy.

Other trends will offset some of the effects and costs of an aging America, however. One is



Source: *Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050* (Washington, DC: U.S. Bureau of the Census, 1996), p. 12.

immigration, but the extent to which it will do so is a function of yet to be determined immigration policies. Another is a likely shift in the retirement age as more Americans remain healthy and active for longer periods. There is also the venerable American tradition of private plans to supplement the retirement income of middle- and upper-income families.<sup>203</sup> But problems will persist. Health care costs will continue to increase on account of both an aging population and the advent of new treatments made possible by scientific discoveries and technological innovations.<sup>204</sup> In 2010, the first of the baby-boom generation will become

<sup>201</sup> Peter G. Peterson, *Gray Dawn: How the Coming Age Wave Will Transform America—and the World* (New York: Random House, 1999), p. 29.

<sup>202</sup> Marilyn Moon, "Medicare, Medicaid, and the Health Care System," *Life in an Older America*, Robert N. Butler, Lawrence K. Grossman, and Mia R. Oberlink, eds. (New York: The Century Foundation Press, 1999), p. 42.

<sup>203</sup> In 1970 the foreign born percentage of the U.S. population stood at 4.7 percent; by 1997, it was 7.9 percent. Campbell J. Gibson and Emily Lennon, *Historical Census Statistics on the Foreign-Born Population of the United States: 1850-1990* (Washington, DC: U.S. Bureau of the Census, February 1999).

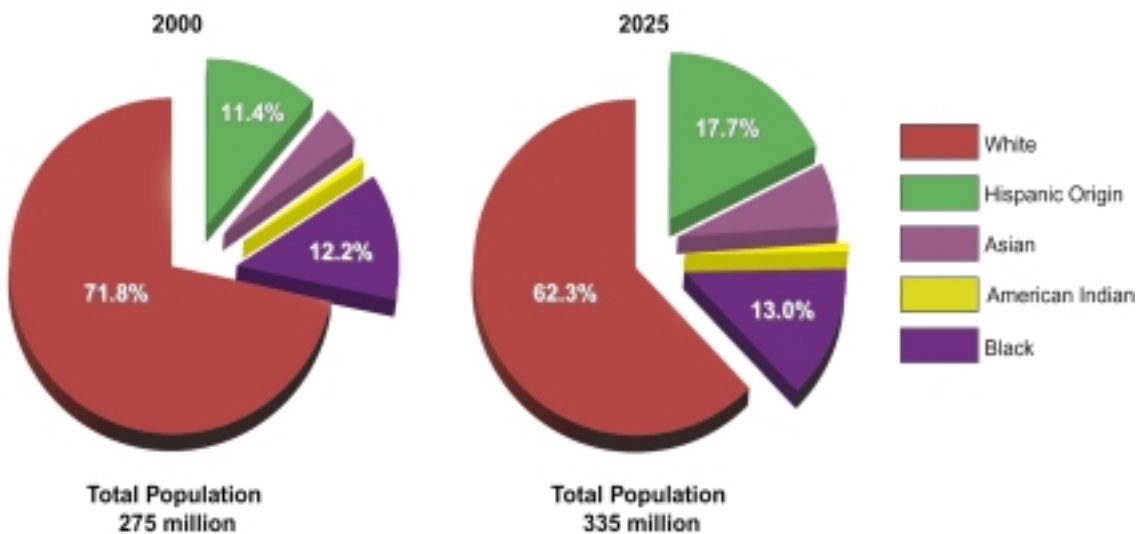
<sup>204</sup> Peterson, *Gray Dawn*.

<sup>205</sup> Moon, "Medicare, Medicaid, and the Health Care System," p. 41.

The racial and ethnic composition of America will also change. Minority racial and ethnic groups will constitute a larger proportion of the population as the non-Hispanic white category falls from 72 percent to 62 percent of the total population in 2025.<sup>206</sup> Hispanics will become the largest minority group by 2025, increasing their percentage of the population from around 11 percent to nearly 18 percent. The Asian/Pacific Islander

What these data do not tell us is whether such changes will be accompanied by greater or less social harmony. Objective realities with regard to relations between racial and ethnic groups do not always match the perceptions of those groups. For example, while nearly every socio-economic and attitudinal indicator shows the considerable progress made by black Americans over the past four decades, polls show that large numbers of blacks believe that

### Increasing U.S. Ethnic Diversity



Source: *Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050* (Washington, DC: U.S. Bureau of the Census, 1996), p. 12.

population will increase from almost 4 percent to more than 6 percent. The black percentage of the population is projected to remain fairly stable, rising from about 12 to 13 percent. At the same time, intermarriage is also changing the country's racial mix. Demographic data suggest considerable intermarriage between Hispanics and non-Hispanic whites and between Asians and non-Hispanic whites. Intermarriage rates are much lower between blacks and other groups. Taken together, these data suggest a more racially mixed American society by 2025.

their relative situation is worse than it used to be.<sup>207</sup> Perceptions matter, and they have potential national security implications. Those who feel alienated from others in their society are, on balance, less likely to sacrifice for the common welfare.

<sup>206</sup> All data in this paragraph are drawn from *Population Projections of the United States by Age, Sex, Race, and Hispanic Origin: 1995 to 2050* (Washington, DC: U.S. Bureau of the Census, 1996).

<sup>207</sup> Analyzed in Orlando Patterson, *The Paradox of Integration* (Washington, DC: Civitas, 1997).

Education, too, will be a critical factor in American social life, for it will affect the quality of leadership in all spheres as well as the technological competitiveness of American society. Here the trends are mixed. The United States ranks first among the industrialized countries in the size, scope, and excellence of its undergraduate and graduate education. Hundreds of thousands of foreign students are enrolled in American universities, making U.S. schools the most sought after in the world. Indeed, large numbers of Ph.D. students in natural sciences and engineering programs are foreign born—in excess of 30 percent in mathematics, computer science, chemistry, physics, chemical engineering, electrical engineering, and mechanical engineering.<sup>208</sup> Many graduates stay in the United States after completing their studies. These general trends are projected to continue over the next 25 years.

At the same time, below the university level U.S. education compares poorly with that in other countries in several key aspects. In mathematics and science, for example, U.S. high school seniors have scored well below the international average, with students from the Netherlands, Sweden, Iceland, France, Canada, Israel, Slovenia, Germany, Russia, and the Czech Republic regularly outperforming Americans.<sup>209</sup> The poor U.S. performance in high school math and science may jeopardize America's future economic and technological competitiveness. More worrisome, the percentage of American students who take college degrees in the hard sciences, mathematics, and engineering is declining.<sup>210</sup>

Significant problems also remain with adult illiteracy, with future effects that are hard to quantify but that could be severe. Roughly one-fifth of American adults have only rudimentary reading and writing skills, and 4

percent are functionally illiterate. Unless progress is made in this regard, the transformative potential of the information revolution will be proportionately limited.<sup>211</sup>

American society is experiencing some positive social trends, among them sharply falling crime rates and strong job creation that has permeated all social strata. But other problems loom. The number of children being reared without both parents has grown markedly in recent years, tracking with both increased divorce rates and out-of-wedlock births. In 1970, 14.8 percent of children did not live with both parents; today, this figure stands at 42 percent—nearly a tripling in less than 30 years.<sup>212</sup> This trend is especially pronounced in some minority communities, where as many as 80 percent of all children will spend a significant part of their childhood with a single parent.<sup>213</sup>

This trend is worrisome because numerous studies have shown that children from single parent households are far more likely to be poor, inadequately educated, and involved in criminal activities than those that grow up with both parents. Some 45 percent of children living with a single parent live in poverty compared to less than 10 percent in two-parent

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208 National Science Foundation, National Science Board, *Science and Engineering Indicators*, 1998, NSB-98-1, 1998, pp. 3-19.

209 National Center for Education Statistics, "The Condition of Education 1999 (NCES1999-022)," (Washington, DC: U.S. Department of Education, 1999), p. 6.

210 *Ibid.*, p. 122

211 See National Center for Education Statistics, *1992 National Adult Literacy Survey* (Washington, DC: U.S. Department of Education, 1992).

212 Current Population Reports P20-496 (Washington, DC: U.S. Bureau of the Census, 1996).

213 Noted in Michael Kelly, "A National Calamity," *Washington Post*, June 16, 1999, p. A37.

households.<sup>214</sup> Such children are more likely to suffer malnutrition and lack adequate medical treatment. Children from single-parent households also do less well academically, are more likely to drop out of high school, suffer from increased levels of depression, stress, anxiety, and aggression, and are far more likely to be imprisoned.<sup>215</sup>

The sharp spike in the numbers of single-parented children over the past 30 years suggests that as these children become adults between now and 2025, the level of social dysfunction may rise proportionately. Such social problems affect the nation's overall health and social cohesion and therefore will capture the energies, attention, and financial resources of various levels of government, the national security community included.

### *Technology Trends*

American preeminence in science and technology will continue into the coming century. At the same time, global trends in technology will deeply influence American society.

With over 60 percent of the world's Internet users located in North America, the United States plays a central role in the global network.<sup>216</sup> No country is as widely "wired" as America, or as dependent on information systems for basic economic and social functions. Many more American households and businesses will be connected in the future as extensive high-capacity fiber optic lines are laid across the continent and along our coasts.<sup>217</sup> Increased amounts of information will be available at decreasing costs. The Internet will not only have a major impact on education, research, and business life in America, but it will also alter patterns of social interaction within the United States, and those between Americans and the world.

American society is likely to remain in the forefront of the information revolution. Most of the seminal scientific research and technological innovation is done in the United States, and American society and the economy are very receptive to new innovations. Nevertheless, America's relative lead in this field will likely decrease as other societies adapt to the information age. Already, some other countries have shown a special talent and affinity for a "wired" world, among them Finland, Australia, Israel, Japan, and Taiwan. But the spread of information culture around the world will not harm the United States; more likely its leading role will help spread its influence.

Biotechnology will redefine the meaning of "old," but it will do more than extend life spans and revolutionize medicine. As noted above, it is rapidly developing the potential to change human nature itself in fundamental ways, as well as significantly modify many species of plants and animals.<sup>218</sup> Biotechnology is keeping America on the innovative edge of the agricultural, medical, and chemical industries, which will maintain the United States as a dominant actor in these sectors for at least the next quarter century.

<sup>214</sup> Eileen Poe-Yamagata, "Children in Single-Parent Homes, 1970-1996, adapted from the 1996 *Green Book* (Washington, DC: U.S. Congress, 1998); and Current Population Reports P20-496 (Washington, DC: U.S. Bureau of the Census, 1996).

<sup>215</sup> Studies noted in Jason Fields and Kristin Smith, "Poverty, Family Structure, and Child Well-Being Indicators From the SIPP" (Washington, DC: U.S. Bureau of the Census, 1998).

<sup>216</sup> See "Internet Development" in International Telecommunications Union, *Challenges to the Network* (Geneva: ITU, 1997), chapter 2.

<sup>217</sup> See Thomas P.M. Barnett and Pat A. Pentland, "Digital Weave: Future Trends in Navigation, Telecommunications, and Computing," CAB 98-52, Center for Naval Analyses, June 1998.

<sup>218</sup> See the special feature issue of *Scientific American*, "Your Bionic Future," Fall 1999.

However, it will also raise basic and divisive ethical questions such as those involving access to new and expensive technologies.

Another divisive issue will concern the increasingly blurred line between medical necessity and “cosmetic” or elective remedial procedures. It will be particularly difficult for experts in medical ethics, insurance company executives, doctors, and government administrators—separately and especially together—to decide how to allocate limited medical resources to a population deeply desirous of securing access to new means of longevity.<sup>219</sup> The international dimension to this problem may be just as troublesome. How will the United States and certain other fortunate countries manage the political and diplomatic implications of the widening gap between life spans in their midst and those in other countries?

Similarly, those countries that are able to fabricate and apply MEMs (micro-electro-mechanical devices) and nanotechnology are likely to have a significant economic and military edge over those who cannot. American scientists and engineers will compete with their Japanese counterparts to lead the drive to miniaturization through micro-fabrication. So revolutionary is the potential for nanotechnology that it may propel U.S. economic growth rates above the high-mark predictions of most experts.

Taken together, these trends in science and technology could change America in fundamental ways, from the way we get our food and our news to how our national culture itself develops. Even the cohesion of the nation—the emotional bonds that link us to our past and to each other—will not be immune from these trends. If, as suggested earlier, technological trends narrow our public space, eviscerate democracy, and isolate social classes from each other, national

cohesion will suffer. If, on the other hand, these trends are guided in such a way as to increase political participation on the local level, bolster the economy, and reverse income inequality, then social cohesion may grow stronger.

What we can predict with fair assurance is that America’s overall edge in military and military-related technologies will endure for the next 25 years. This is directly related to the size of U.S. military research and development spending, which amounted to \$32 billion in 1996, nearly 70 percent of military R&D investments worldwide.<sup>220</sup> There is no reason to expect dramatic changes in such trends. Moreover, since R&D spending in general has shifted away from government and toward industry—and since the U.S. lead in private sector R&D investment is also considerable<sup>221</sup>—the relative U.S. technological edge may actually grow over the next quarter century. Still, whether the U.S. government will succeed in applying that edge intelligently to its military capabilities remains

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<sup>219</sup> This technology is growing rapidly. Note Nicholas Wade, “New Study Hints at Way to Prevent Aging,” *New York Times*, August 27, 1999.

<sup>220</sup> Frank Killelea, “International Defense Trends and Threat Projections: R&D Spending Trends,” briefing at the Johns Hopkins University Advanced Physics Laboratory, February 26, 1999.

<sup>221</sup> According to National Science Foundation and OECD statistics, all non-governmental spending on science and technology R&D in the United States (including business, higher education, and private non-profit investment) amounted to about \$159 billion (in 1990 dollars) in 1997. By way of comparison, Japan invested in total about \$70 billion, Germany invested about \$33 billion, France about \$25 billion, the United Kingdom about \$20 billion, Italy about \$11 billion, and Canada about \$9 billion. In other words, U.S. non-governmental R&D investment nearly equaled the total R&D investment of its next six closest competitors. See National Science Foundation, *Science and Engineering Indicators*, 1998, Appendix A, table 4-42; and “Basic Science and Technology Statistics” at [www.oecd.wash.org](http://www.oecd.wash.org).



to be seen. This may depend on developing new ways to insure that America's burgeoning private-sector technological assets are properly inventoried, shared, and utilized for the overall national good.

### *Economic Trends*

The most dramatic effect of new technology on American society is likely to be felt through its impact on the economy. A stream of new innovations could spur very strong economic growth over much, if not all, of the next 25 years.

U.S. gross domestic product (GDP) in 1998 exceeded \$8.5 trillion.<sup>222</sup> As to the future, one group of experts predicts 3 percent annual growth as the likely upper limit of American economic expansion over the next 25 years, which would double the size of the American economy by 2025. If correct, this forecast would mean that the GDP would reach at least \$16 trillion by 2025, creating the possibility of retiring the entire national debt before 2025.<sup>223</sup> Others speculate that growth could even be higher owing to the revolutionary technological innovations in our future, and recent studies showing the effect of the information revolution in gains in productivity tend to bolster such speculation.<sup>224</sup>

On the other hand, sharply curtailed economic performance in the United States is not impossible. A massive technological failure, the advent of unexpected pandemics, a major war, or consistently bad economic policies could all produce much slower growth—under 2 percent per annum. Moreover, American growth rates depend at least to some extent on economic performance in the rest of the world, a phenomenon

over which we have little control and one that cannot be predicted with any assurance.

What can be predicted is the growing internationalization of the U.S. economy. U.S. investment will remain a major factor in the global economy, and the international share of the U.S. economy will increase because of a growing dependence on foreign trade, investment, and foreign ownership of U.S. economic assets. Between 1994 and 1998, foreign direct investment in the United States rose from \$45 to \$189 billion.<sup>225</sup> U.S. foreign trade as a percentage of GNP rose from 11 percent in 1970 to 24 percent in 1998.<sup>226</sup> This upward trajectory will continue so long as global economic growth continues to average at least 2 to 4 percent over the next 25 years.

Despite likely strong economic growth, problems of income distribution within the United States could become significant. Trends in income distribution matter because perceptions of basic fairness may affect American social cohesion. Americans traditionally feel some ambiguity about extreme

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<sup>222</sup> U.S. Department of Commerce, Bureau of Economic Analysis, "National Data Accounts," August 26, 1999.

<sup>223</sup> President Clinton first raised this possibility publicly on June 28, 1999. See David E. Sanger, "Clinton Sees the Possibility of Zero U.S. Debt by 2015," *New York Times*, June 29, 1999.

<sup>224</sup> See Lohr, "Computer Age Gains Respect of Economists."

<sup>225</sup> Department of Commerce, Bureau of Economic Analysis, "International Investment Data, Foreign Direct Investment in the United States: Capital Flows," at [www.bea.gov/bea/di1.htm](http://www.bea.gov/bea/di1.htm).

<sup>226</sup> "U.S. Aggregate Foreign Trade Data, GDP and U.S. International Trade in Goods and Services, 1987-98," U.S. Department of Commerce, Bureau of Economic Analysis, at [www.ita.doc.gov/industry/otea/usfth/tabcon.html](http://www.ita.doc.gov/industry/otea/usfth/tabcon.html).<sup>226</sup> "U.S. Aggregate Foreign Trade Data, GDP and U.S. International Trade in Goods and Services, 1987-98," U.S. Department of Commerce, Bureau of Economic Analysis, at [www.ita.doc.gov/industry/otea/usfth/tabcon.html](http://www.ita.doc.gov/industry/otea/usfth/tabcon.html).

disparities in income: they resent the rich and long to emulate them at the same time. As long as the gains of the wealthy are perceived to be made fairly, on the basis of equality of opportunity, their achievements have been respected by most in the past. They also tend to be tolerated more easily if the fortunes of those lower down on the socioeconomic ladder are also improving. There is no reason to suspect that these basic attitudes will change in the future. Nevertheless, wider income disparities increase pressures for social service spending, potentially limiting the resources available for other domestic and military programs. What does the future look like in this regard?

Between 1968 and 1994, the difference in income levels between the wealthiest and the poorest Americans grew 22.4 percent.<sup>227</sup> In 1947, the top 5 percent of American families owned 15.5 percent of the national income; by 1967 that figure reached 16.4 percent, and by 1994 20.1 percent. Put another way, the data show the inflation-adjusted income of the bottom fifth of working families in America dropped by 21 percent between 1947 and 1995, while the income of the top fifth rose by 30 percent.<sup>228</sup> As important, real wages for a sizable percentage of the American population were stagnant for the better part of the last 15 years. Recent data suggest that both of these trends may have been halted and even reversed.<sup>229</sup> But these new trend lines are too new to project them confidently into the future, and there is reason to doubt their continuation.

Global economic trends, in particular, may contribute to a worsening of income inequality in the United States. First, the continued movement of the workforce away from physical labor related to traditional industry and toward information-age jobs in the service

sector could leave many Americans in the lurch.<sup>230</sup> Not everyone is equally adept at acquiring the skills that are most important in knowledge-based economies, and not everyone will have access to quality education. Second, the internationalization of labor sources and investment opportunities could direct new job and wage growth overseas, thus contributing to the sharpening of class divisions and income disparities in the United States.

Beyond that, emerging domestic investment trends influenced largely by opportunities in new technologies appear to have a mixed impact on income inequality. On the one hand, new business start-ups and the job creation that goes with them will probably remain strong, contributing to continuing, or

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<sup>227</sup> This metric defines the average national income and looks at the distribution of people making more than the average, relative to those making less. Establishing any year arbitrarily as a base, the index counts the movement of income distribution from one side of the mean to the other.

<sup>228</sup> Daniel H. Weinberg, *Current Population Reports: A Brief Look at Postwar U.S. Income Inequality* (Washington, DC: U.S. Census Bureau, June 1996).

<sup>229</sup> Noted in Tyson, "Wages and Panic Buttons."

<sup>230</sup> As of 1996, about 2.8 percent of Americans were engaged in agriculture, fisheries, and forestry. About 23.8 percent were engaged in manufacturing, and the rest, some 73.3 percent, were engaged in services (including public services at the federal, state, and local level). See OECD, *Labor Force Statistics, 1976-1996* (Paris: OECD, 1997). The Bureau of Labor Statistics projects that by 2006 high-tech employment will be nearly 16 percent of total employment. Employment generated by the purchases of goods and services by high-tech industries for use as inputs in their production process will grow faster than high-tech employment, increasing by 54 percent between 1996-2006. See, Daniel Hecker, "High-technology employment: a broader view," *Monthly Labor Review*, June 1999, pp. 18-28, and especially U.S. Department of Commerce, *Falling Through the Net: Defining the Digital Divide* (Washington, DC: USGPD, 1999).

increasing, social mobility.<sup>231</sup> This could lead to a greater equalization of income over time within the top half to two-thirds of the U.S. labor force. But that might not translate into significant numbers of new jobs at lower economic echelons since much new technology is aimed at minimizing low-end human participation in commercial processes. Hence, an American economic underclass will not disappear and may even grow. It is too early to say whether such trends will increase unrest or social fragmentation in American communities, but the possibility will doubtless command the attention of America's leadership in the years ahead.

### *Values, Attitudes, and National Will*

The cohesiveness of a society, its will, and its civic consciousness form the bedrock of national power. The United States is unusual among nations in that its national identity hinges more on shared ideals rather than common ethnicity. But while the foundation of U.S. national power might appear less secure than in more ethnically homogeneous societies, experience does not bear out that prognosis. For all our disagreements and divisions, Americans have demonstrated historically that they possess a strong collective identity and that they rise to challenges when necessary. The key question for the future is this: When we are next challenged, perhaps in a manner beyond our historical experience and powers of anticipation, will our social cohesion endure or will it erode? There is considerable disagreement over the answer.

Some observers are quite worried, based on the view that American society has become dangerously fragmented along ethnic, racial, and sectarian lines. In this view, the growing cultural emphasis on the multi-

cultural facets of American society has led over time to a growing inclination for many Americans to think of themselves as members of social subgroups. A shift toward celebrating differences, rather than commonalities, among Americans has changed the balance between national and sub-group identities. Paradoxically, as America has become less strictly "color" conscious over the past 40 years, it may have become more ethnically conscious. The unrestrained assertion of differences could push a benign impulse toward pluralism into fragmentation, undermining the sense of a shared national purpose.<sup>232</sup> The effect on foreign policy, some argue, is already evident. As James Schlesinger has put it: "Rather than reflecting a hammered-out vision of the national interest, America's present policy consists largely of the stapling together of the objectives of individual constituencies. . . . The new intellectual fashions weaken and, in a sense, delegitimize the search for [a] common purpose. They abet the fragmentation of society."<sup>233</sup>

There is concern, too, about changes in the attitudes of younger generations. The strengthening of group consciousness has not expunged individualism as a principal American trait, but the members of Generation X—those born between 1965 and 1978—seem to exhibit an individualism of a different sort. According to some observers, it is a more cynical individual-

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<sup>231</sup> Entrepreneurship in the United States far outpaces that in most other societies. In the case of Europe, American business start-ups per capita overshadow those in EU countries by a factor of more than 4 to 1. See 1999 *Global Entrepreneurship Monitor*, summarized in Julia Flynn, "Gap Exists Between Entrepreneurship in Europe, North America, Study Shows," *Wall Street Journal*, July 1, 1999.

<sup>232</sup> See Arthur Schlesinger, Jr., *The Disuniting of America* (New York: W.W. Norton, 1992).

<sup>233</sup> James Schlesinger, "Fragmentation and Hubris," *The National Interest*, No. 49 (Fall 1997), pp. 4, 6.

ism aimed at shielding the young from what they often perceive to be the excessive hype and hypocrisy of contemporary American culture.<sup>234</sup> Such “ragged” as opposed to “rugged” individualism may not be conducive to a healthy engagement in civil society. The 1998 Final Report of the National Commission on Civic Renewal, co-chaired by William J. Bennett and Sam Nunn, noted a significant decline in the nation’s willingness to participate in civic activities over the last 25 years, particularly among the young, and warned that “we are in danger of becoming a nation of spectators.”<sup>235</sup> Harvard political scientist Robert Putnam, too, has argued that civic engagement is diminishing. He notes that voter participation in national elections has declined by 25 percent over the last 30 years, and that 75 percent of Americans said in 1992 that they had little or no trust in the federal government—an increase of about 45 percent since the mid-1960s.<sup>236</sup> That fact that political participation at local and state levels may be increasing, though good news in some important respects, does not necessarily augur well for the coherence of policy at the national level.<sup>237</sup>

In addition, some fear that the propensity of the average American to identify with this country and its government may be waning. Several reasons are cited, one being that as America’s economic life becomes increasingly internationalized, political loyalties will follow the source of paychecks. Others point to the diminution of overt acts of national identification, such as school children saying the pledge of allegiance, voting, attending a July 4th celebration, the traditional observance of Memorial Day, the willingness to serve on a jury, and saying a prayer for the country in one’s house of worship. Relatedly, others fear that public education in the United States does not emphasize the teaching of civics as it once did, and still

others that without any explicit ideological challenge to American values, as there was during the Cold War, there is less reason to learn and to cherish those values. Others note that as the heroic generation of World War II passes from the scene, ever fewer Americans will have models of those who served in uniform in an unambiguously “good war.” As Stephen Ambrose has written: “My greatest fear about today’s young people is that they will grow to adulthood without the sense of a common past or a common experience.”<sup>238</sup>

Finally, many of those worried about the future coherence of American society find little to comfort them in the American foreign policy tradition itself. The United States has little experience of an active foreign policy strategy outside this hemisphere except under conditions of national emergency or ideological mobilization. We have had the luxury of being able to protect our security through strategies that were primarily responsive to foreign threats. In the absence of such a threat, we have experienced mostly periods of heated but inconclusive debate over the American mission in the world. Some observers believe that, with the end of the Cold War, we are headed back into such a period—this despite the fact that global trends suggest that threats to Americans and their homeland are increasing. As a result, some believe, foreign policy questions are as

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<sup>234</sup> See Ted Halstead, “A Politics for Generation X,” *The Atlantic Monthly*, August 1999.

<sup>235</sup> *A Nation of Spectators: How Civic Disengagement Weakens America and What We Can Do About It*, Final Report of the National Commission on Civic Renewal (Washington, DC: June 1998).

<sup>236</sup> Robert Putnam, “Bowling Alone: America’s Declining Social Capital,” *Journal of Democracy*, January 1995.

<sup>237</sup> See *Deconstructing Distrust: How Americans View Government*.

<sup>238</sup> Stephen Ambrose, “The End of the Draft, and More,” *National Review*, August 9, 1999.

likely to divide us as bring us together, and heated argument as likely to emaciate the national will as fortify it.

Taken together, multicultural fragmentation, the internationalization of the economy, shifts in generational attitudes, the decline in overt manifestations of national identification, and our traditional inattention to foreign policy issues in the absence of a crisis, suggest to some a serious undermining of American identity and national will. If so, we would thus behold a country that, though strong and wealthy, would be less willing to sacrifice for the common good.

The jury is still out, however, as to the true extent of the problem—and its future. Despite lower voting numbers, some scholars see little decline in volunteerism and community involvement.<sup>239</sup> There has been no fundamental change in basic civic values, either. As in the past, Americans remain a nation of “joiners” who have excelled in coming together in “intermediate organizations” to enrich the relationship between individual citizens, their communities, and the larger national society. Americans are more involved in volunteer, philanthropic, and community organizations per capita than any other people in the world.<sup>240</sup>

Individual identity with the country, as expressed through individual expressions of concordance with fundamental American values, also seems to be strong. Survey data show that Americans have not ceased seeing their country as exceptional, have not stopped honoring those who have served in uniform, and have not abandoned the conviction that America is a benign force in the world. Americans today seem to place no less importance in the rule of law, democratic governance, and the protection of liberty than they ever did.

The dignity and worth of the individual still counts, and commitment to social justice remains robust. The entrepreneurial spirit remains strong, as does the belief that hard work pays off. As a nation of immigrants, Americans still exalt merit over the happenstance of birth. Polling data also suggests that Americans remain generally positively disposed toward themselves, regarding the nation as a generous, moral, and just one that is well worthy of emulation by others.<sup>241</sup>

Still others note that organized religion also provides a basis for social cohesion, and it remains a powerful force across the country. As the Founding Fathers understood, community religious life brings people together, transmits moral values across and among generations, encourages community action, and supports family life. The data show clearly that Americans actively participate in organized religious organizations more than any people in the developed world.<sup>242</sup>

Insofar as the American diplomatic tradition is concerned, many argue that even here

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<sup>239</sup> John Hall and Charles Lindholm, *Is America Breaking Apart?* (Princeton: Princeton University Press, 1999).

<sup>240</sup> See James E. Curtis, Douglas E. Baer, and Edward G. Grabb, “Voluntary Association Membership in Fifteen Countries: A Comparative Analysis,” *American Sociological Review*, Vol. 57 (1992), pp. 139-52; and Virginia A. Hodgkinson and Murray S. Weitzman, *Giving and Volunteering in the United States* (Washington, DC: Independent Sector, 1996).

<sup>241</sup> Relevant polling data may be found in Gallup polls. See, for example, “Satisfaction with U.S.,” and “Religion: Gallup Social and Economic Indicators, 1999,” at [www.gallup.com](http://www.gallup.com).

<sup>242</sup> See American Religious Data Archive, Lilly Endowment, Dept. of Sociology and Anthropology, Purdue University, Queens 1996 Survey. Also see Richard Cimino and Don Lattin, “Choosing My Religion,” *American Demographics Magazine*, April 1999, and Shelly Reese, “Religious Spirit,” *American Demographics Magazine*, August 1998.



there is cause for optimism. In the past, it is true, U.S. expeditionary military forces and foreign commitments were downsized or ended as soon as a foreign danger had passed. But, so the argument goes, it has been a long time since that pattern was visible. It was overshadowed following World War II, and now that the Cold War is over, America's economic and political commitments have cast it as the apparent guarantor of global stability. In recent years, and despite the military downsizing that followed the Cold War, U.S. troops have operated in over one hundred different countries.

The American people appear to support that posture. One recent survey notes that Americans prefer a policy of "guarded engagement": clearly committed to American participation in world affairs when such participation is seen to be in pursuit of their own interests.<sup>243</sup> Other studies characterize public support for an active American role in the world as one of "supportive indifference." In other words, the body politic evinces little feeling for or against most foreign policy or defense issues as long as they exact no great cost in blood. This appears to be borne out now by more than a decade's experience. Since the end of the Cold War, the United States has embarked on nearly four dozen military interventions in the past decade as opposed to only 16 during the entire period of the Cold War.<sup>244</sup> Many of these interventions, such as those in Somalia, Haiti, Bosnia, and Kosovo, were launched into areas traditionally considered marginal to U.S. interests. None rallied the national will nor captured the public imagination even in the way the Gulf War did, and few post-Cold War interventions have had the support of the majority of the public. Yet only one ended abruptly due to a lack of political support.

**I**n the face of this debate, we simply do not know the extent to which American

society might fragment or lack the will for common action when it is required in the future. It would depend on how current trends evolve, on the nature of the challenge that America will confront, and on the qualities of American leadership between now and then.

That we fear fragmentation is probably a healthy thing—as long as we do not go overboard—for it leads us to guard against it. In any event, this is our legacy: For good reason, the fear of fragmentation has a long history in American political and social thought.<sup>245</sup> The reality, however, may not be so dire. For all of our problems, one fact stands out: Large numbers of people around the world still long to come to America, and they long to become Americans. It is not just the prospect of greater material wealth that attracts so many, but the prospect for freedom and human dignity that goes along with it. This suggests that American culture retains at least some degree of coherence and underlying unity.

Finally, it almost goes without saying that the American national will to remain an active force in global affairs depends to some degree on the state of the world. The emergence of a relatively benign international environment would sit well with American values, self-image, and assumptions about how the world works. In circumstances where American power

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<sup>243</sup> John E. Rielly, ed., *American Public Opinion and U.S. Foreign Policy* (Chicago: Chicago Council on Foreign Relations, 1999).

<sup>244</sup> For the list as it stood before the Bosnia and Kosovo interventions, see Richard F. Grimmett, *Instances of the United of United States Armed Forces Abroad, 1798-1995*, Congressional Research Service Report 96-119F, February 6, 1996, pp. 18-25.

<sup>245</sup> See Barry Glassner, *The Culture of Fear* (New York: Basic Books, 1999), and David Whitman, *The Optimism Gap: The I'm OK-They're Not Syndrome and the Myth of American Decline* (New York: Walker and Co., 1998).

can advance the values we hold to be universal in application, an active global U.S. role is assured. The challenge would be to leaven American exuberance with patience and probity. But in a world that mocks our values, deflates our optimism, threatens our life and limb, and seems unresponsive to our best efforts to help, a return of the isolationist impulse is not beyond imagination. Rather than an America radiating light from Governor Winthrop's "city on a hill," Americans may convince themselves that Hobbes' adjectives for political life in a state of nature, "nasty, brutish, and short," far better describe global realities and decide that all forms of charity should indeed begin at home. This is an important difference, for what Americans believe about the world and their role in it will constitute a major datum in the global story that will unfold over the next 25 years.

### *Trends Affecting National Security*

The social, economic, and technological trends noted above suggest that, in a broad sense, America will not want for means. We will be wealthy, and we will be healthy. But they suggest that social problems and a general inattention to issues of national security could systematically prejudice national budgets away from investments in national defense. Both of those potential problems would in turn worsen a third, structural problem: the way we organize military manpower.

Since the nation abolished conscription a quarter century ago, our military forces have depended successfully on volunteers. Recent data indicate that the American population will not be as obliging as in the past, especially if the economy continues to prosper. For a variety of reasons, recruiting has been a steadily growing problem for nearly two

decades. Short thousands of recruits, the services have lowered entrance standards and reinvigorated recruiting efforts, prompting a renewed debate about mandatory national service and the return of the draft. Retention is also problematic. A booming economy and a heightened operational tempo are siphoning off large numbers of trained personnel and lowering re-enlistments, as has been particularly the case with pilots in recent years.

In the future, challenges to recruitment and retention will be formidable, although these will depend to a considerable extent on decisions made about force structure and readiness requirements. The Pentagon's most recent attitude surveys show that the willingness of 16 to 21-year old men to serve—especially African-American men, who have constituted a disproportionate percentage of the all-volunteer force for the last quarter century—has dropped sharply over the past decade. Moreover, Hispanics, the fastest growing segment of the American population, are greatly underrepresented and show no signs of increasing their inclination to serve.<sup>246</sup> Although the percentage of women in the armed forces will continue to rise, their numbers are unlikely to make up for the decline in male enlistments. Data show that 45 percent of the women who enlist leave the military before the end of their first tour of duty, as compared with the average of 34 percent of men. They are also less deployable, at least under current operational guidelines.<sup>247</sup> Efforts to further "outsource" certain military functions to civilian

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<sup>246</sup> See David Segal, Jerald Bachman, Peter Freedman-Doan, and Patrick O'Malley, "Propensity to Serve in the U.S. Military: Temporal Trends and Subgroups Differences," *Armed Forces & Society*, Spring 1999, p. 421; and Lloyd Matthews, "Primer on Future Recruit Diversity," in *Population Diversity and the U.S. Army* (Carlisle, PA: U.S. Army War College, 1999), pp. 1-6.

contractors cannot compensate for the recruiting shortfall in military combat specialties, most of which women and civilians cannot fulfill under current policy. It is not clear how the military establishment, then, will sustain the volunteer force over the next generation, and particularly, how it will manage to recruit and retain enough highly skilled personnel to meet the increasing technical needs of an advanced military.

These trends portend—and in some ways reflect—a growing distance between America and its military. With ever fewer Americans serving in the military, society's understanding of the military's purpose and relationship to the country and the government is bound to weaken. While the military remains one of the most admired public institutions in America, it is admiration from afar—appreciation from a mostly non-participating populace. The impact of this divide may be felt most keenly at elite levels. The number of leaders in almost every walk of American public or private life who have served their country in uniform is rapidly declining. The profile of national leaders dealing with strategic affairs reflects these trends. The House of Representatives had 320 veterans in 1970, but fewer than 130 in 1994. For the first time in the 20th century, the percentage has now fallen below the percentage of veterans in the population at large. If these trends continue, a small professional military will stand increasingly apart from the country and its leaders. Such a civil-military balance could further divorce Americans from their government and serve to loosen identification with, and participation in, a common national purpose.

The changing role of the American military is part of this picture, both in terms of civil-military relations and in terms of readiness. The relationship between the military and society could be affected by the use of the armed forces

in domestic missions such as drug interdiction, law enforcement, or border security. In certain circumstances, however, such as the protection of the homeland from a clear threat, that relationship could be enhanced. Assigning domestic missions to the armed forces could also erode military readiness for wartime operations abroad. There are formidable legal hurdles to the assigning of such missions, as well, but some American leaders seem willing to jump them.<sup>248</sup>

A weaker societal understanding of the military, combined with the downtrend in recruiting, has led some prominent Americans to suggest a return to conscription, programs of national service, or a militia-based force.<sup>249</sup> Others, while acknowledging that such approaches would strengthen civic participation, point out that a conscript military might limit an active foreign policy that frequently puts conscripted American soldiers, sailors, airmen, and marines in harm's way.

The ability to carry out effective foreign and military policies requires not only a skilled military, but talented professionals in all forms of public service as well. Government institutions face similar challenges as they compete for people with the corporate sector.

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<sup>247</sup> See *Military Attrition: Better Data, Coupled with Policy Changes, Could Help the Services Reduce Early Separations*, GAO Report NSIAD-98-13, September 1998; and F. E. Garcia, K. S. Lawler, and D. L. Reese, *Women at Sea: Unplanned Losses and Accession Planning*, Center for Naval Analyses Research Memorandum 98-182, March 1999.

<sup>248</sup> Sam Nunn proposed domestic roles for the U.S. military in 1992 and Bob Dole and Lamar Alexander made similar proposals during the 1996 presidential campaign. See Charles Dunlap, "The Origins of the American Military Coup of 2012," *Parameters*, Winter 1992-93, pp. 2-20.

<sup>249</sup> One example is Gary Hart, *The Minuteman: Restoring an Army of the People* (New York: Free Press, 1998).

Employment trends for those entering the field of international relations show that growing numbers of graduates of foreign affairs programs are entering the private rather than the public sector.<sup>250</sup>

What does all of this come to? One observation is unarguable: the stability and direction of American society and politics will shape U.S. foreign policy goals and capabilities, and hence the way the United States will affect the world's future. Beyond that, one other major theme stands forth.

The United States has a certain spirit, and it is the spirit of the first and greatest mass democracy in history. And yet since the end of the Cold War we have taken on, however reluctantly and even absent-mindedly, a world role that requires much potential sacrifice and the mobilization of substantial national resources and will. Can this role coexist for very long with an America that does not feel threatened, and that is focused instead on domestic issues? Perhaps it can, but if so, it must be shown, not assumed, to be the case. That is a challenge not yet seriously taken up at the level of national debate.

Notwithstanding the post-Sputnik dangers of a nuclear missile attack from afar, U.S. national security policy in the 20<sup>th</sup> century has

been something that mainly happened “there,” in Europe or Asia or the Near East. Domestic security was something that happened “here,” and it was the domain of law enforcement and the courts. Rarely did the two mix. The distinction between national security policy and domestic security is already beginning to blur, and in the next quarter century it could altogether disappear. If it does, if such threats become reality, or even if they merely become more apparent, Americans are likely to abandon their attitude of “supportive indifference.” That would affect demands on leadership to respond to such threats, and it would likely affect national budgetary priorities, as well. Depending on the nature of such threats, very divisive arguments could erupt over the proper role of the military in internal security operations.

If the stakes rise in such a fashion, one thing is likely to become vividly clear: The American people will be ready to sacrifice blood and treasure, and come together to do so, if they believe that fundamental interests are imperiled. But they will not be prepared to make such sacrifices over indirect challenges, or over what seem to them to be abstract moral imperatives. That is the history of American responses to foreign challenges, and that appears also to be its future.

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<sup>250</sup> Over the 1991-1997 period, the proportion of those graduates entering the private sector increased 10 percent (up from 32 percent to 42 percent), and student demand for business and finance courses in these programs is on the rise. Although the number of candidates taking the U.S. State Department's foreign service exams has shown little change, those entering the Foreign Service are serving shorter tours due to increasing competition with private industry.

## IV: Worlds in Prospect

As we noted at the outset of this study, human history is contingent. We cannot know what the world will look like over a quarter century away because many of the decisions that will shape that world have not yet been made. Moreover, there are too many different interactive causal factors involved, encompassing geophysical, economic, political, social, and military elements, to know which single, composite “world” will issue forth from them. Alas, perfect knowledge of the future is impossible, and Nietzsche came close to hitting on the reason: “No one can dream more out of things, books included, than he already knows. A man has no ears for that which experience has given him no access.” In other words, our repertoire of expectations is limited by our repertoire of knowledge.

One way to overcome this difficulty is to tease our imaginations into walking ahead of our experience. We can do this by constructing logical models of alternative futures, in this case, by building global scenarios. We do this not at random, but by defining *clusters of likelihood* derived from what we know about how the world works. The scenarios can then be used as heuristic devices to help us understand the ways in which the world may evolve over the coming 25 years.

The global scenarios that follow describe the integrated interplay of developments in technology and economics with the social, political, and military environments. By giving us essentially real-time connectivity with anyone anywhere, technology has provided a venue for unifying the world and influencing events globally. Yet the adoption of new technologies generates pressures to transform or even overthrow existing political and social orders. The

emergence of a global economy encourages international cooperation and interdependency, but it can also lead to economic competition and even disintegration. States will succeed or fail depending on whether they are able to seize the opportunities of globalization and at the same time deal with the accompanying dislocations. In the social world, the integrating forces of secularization may or may not win out over the divisive forces of parochial nationalism and other ideologies. Global security will be enhanced if economies grow and political liberalism expands, or endangered if the world divides amid major tensions and conflicts.

The different ways in which these uncertainties are resolved form the basis for four worlds: The Democratic Peace; Protectionism and Nationalism; Globalization Triumphant; and Division and Mayhem. The first two are evolutionary scenarios, one tilted toward the optimistic side of life, the other toward the more pessimistic. The last two are revolutionary scenarios, also tilted in positive and negative directions. To a great extent, the third scenario is an extension of the first, and the fourth extends the second. These are, in turn, followed by a speculation that the first quarter of the 21st century will be a patchwork of the four worlds.

### *A Democratic Peace*

A future world of a Democratic Peace has three essential elements. First, democratic norms predominate, and these are conducive to economic cooperation and general prosperity. Second, sharp ideological conflict does not exist, and while cultural differences remain real, they appear to be converging rather than widening. Third, an advanced level of political cooperation among states is achieved and maintained. War among major powers would be unlikely, and war



among most democracies even more unlikely.<sup>251</sup> The principle of national sovereignty is tested by new problems and eclipsed somewhat by the introduction of new international arrangements. But the principle endures.

Economically, moderate growth is assumed, with developed countries averaging around 2-3 percent annually and developing countries averaging 4 to 5 percent annually. Economic crises continue to occur in developing countries, but their severity is lessened through improved transparency and regulatory measures gradually introduced over time, and through essentially benign pressure from reformed and increasingly well respected international financial institutions. Key countries, rather than international institutions or multinational corporations, still control global economic policies, but multilateral economic cooperation is expanded through the IMF, the World Bank, the WTO, and a G-9 grouping that includes China.

The information revolution continues and deepens, creating a world of integrated intranets existing on the overall edifice of the global Internet. States adopt new standards to help improve protection of the critical information infrastructure. The revolution in biotechnology proceeds, with most governments—and all the major ones on whose soil biotechnological research is proceeding—having managed to establish minimum controls over areas of particularly contentious ethical concern.

There will still be plenty to worry about in such a world. Global inequalities will prove vexing. Economic infrastructures will be vulnerable to attack. Some dangerous technologies will still evade control. The few remaining holdouts from the increasingly institutionalized

normative order will be able to do far more physical harm than heretofore.

But a world characterized by greater opportunities for cooperation among major states will be a world in which multilateral action is the rule rather than the exception. At the global level, states will advance the formulation and enforcement of normative international law. The United Nations is a chief instrument in resolving transnational issues. Regional trade entities will increasingly coordinate their foreign and security policies. Multilateral efforts stress conflict prevention. Major states devise ways to deal with the demands of aggrieved ethnic or sectarian minorities. Like-minded governments cooperate, and institutionalize that cooperation, to respond to “rogue” regimes or armed terrorists.

In the absence of significant security tensions, military power functions more to reassure and deter than to compel. Military spending worldwide declines as a share of GDP, but not precipitously so. Governments maintain modest research and development efforts in leading edge technology areas, such as space exploration. But modernization will have slowed down and military arsenals will have been reduced. The proliferation of weapons of mass destruction is curbed and, in some cases, rolled back.

This world is a positive evolution of today’s world. The United States continues to emphasize support for democracy and free markets. It remains militarily strong, while adapting its force posture to this more peaceful

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<sup>251</sup> This scenario should not be equated directly with the version of the political theory of the same name that argues that war between democracies is virtually impossible. Charles Dunlap, “The Origins of the American Military Coup of 2012,” *Parameters*, Winter 1992-93, pp. 2-20.

world. U.S. self-restraint helps prevent a peer competitor or regional grouping of powers from arising to challenge the United States.

### *Protectionism and Nationalism*

The stalling of global economic integration, the eventual creation of regional power blocs, and the rise of nationalism characterize a world of Protectionism and Nationalism. Such a world comes into being on account of a protracted global financial crisis, a major environmental or technological disaster, or widespread political and social backlash against globalization and Western—and specifically American—pretensions to hegemony.

There is global economic growth, but living standards in much of the developing world decline. The failure of governments to deliver on social needs, as populations grow and resources dwindle, produces social unrest in many countries. Latin America, Asia, and Africa are particularly hard hit, given their high dependence on external financing and export markets.

The so-called Washington Consensus, based on the belief in the saving power of global commerce and international economic institutions, has come to an end. States instead seek to protect their citizens from the ill effects of unfettered trade, capital movements, and the spread of technology. Many states, including possibly the United States, abandon international trade agreements, such as the WTO. A fundamental ingredient for global growth—the relatively free flow of trade and capital across borders—is significantly decreased in scope, given the increased risks to capital and the introduction of protectionist trade barriers.

Cross regional alliances emerge, perhaps a NAFTA-Europe political and economic pact or

a Latin American regional grouping. Given its significant domestic savings rate and growing populations, Asia seeks to provide its own regional source of growth. Assuming greater global dependence on fossil fuels, the Near East becomes a pivotal focus of global courting and potential contention. But protectionism mingled with parochial nationalism has more baneful effects within regions, and that is where the danger of conflict and violence is greatest.

With protectionism on the rise, many states impose controls and other regulations on the spread of technology. That feeds the economic slowdown and limits somewhat the “internationalizing” effects of the information revolution. The Internet fragments globally and becomes localized in the developed countries. Governments, corporations, and individuals see little benefit to being connected. Rather than sharing information, they hoard it.

In this world, economic, social, and political dislocations are widespread. Nationalism and ethnic rivalries increase in number and importance. Significant political changes occur in some key states, leading to the creation of highly nationalistic, fundamentalist religious, and even fascist political regimes. Some important states fragment or fail, giving rise to violence, humanitarian disasters, major catalytic regional crises, and the spread of dangerous weapons.

Military capabilities and alliances increase in importance. Spending on military forces rises as states place renewed emphasis on acquiring and using military force. Developments in military technology have produced advancements in nanotechnologies, miniaturization, stealth, and anti-stealth. Weapons of mass destruction proliferate to a number of smaller regional powers. Space is weaponized and

becomes a locus of competition and conflict among the more technically advanced countries.

This world is a negative evolution of today's world. Initially, the United States is unequalled in economic and military power. However, within 15 years, a number of regional economic competitors arise, as well as a peer competitor or hostile coalition with the military means to challenge the United States. The United States retains a large military force capable of responding to a range of contingencies, including future inter-state conflicts.

### *Globalization Triumphant*

**I**n a world of Globalization Triumphant, the world economy grows at an unprecedented pace. Modern technology spreads worldwide. All national economies, with few exceptions, are networked into the global market. Trade in goods and services along with capital flows expand globally, as do multilateral institutions and international agreements designed to manage the new economy.

On the national level, states will have been able to design and introduce responsive systems of governance capable of preventing major economic dislocations and social tensions. They will have adopted policies conducive to economic growth, including appropriate legal systems and economic regulations. Despite some lingering tensions, governments around the world will have continued to move toward free trade, advancing overall global prosperity and supporting political liberalization.

Economically, growth in the developed world is assumed to be at or above 2 percent a year, and in the developing world 5-6 percent a year. The share of global GDP held by developing countries comes to exceed that of

developed countries. Tariffs are eased and trade increases globally. Global energy prices remain stable or drop due to major technological innovation. No major protracted downturn in any major industrialized country or region occurs, and no major conflicts between states or within states arise to destabilize the global economy or financial flows. Some transnational threats still remain, including those from cultists, terrorists, drug traffickers, and other criminals. Economic infrastructures also are vulnerable, but with fewer disgruntled groups and more effective voluntary controls on trade in dangerous substances, that vulnerability is modest and receding.

The combination of global economic integration and the diffusion of technology leads to a fundamental change in the ability of states to influence events on the world stage. In essence, information and economic power become truly globalized, while military and diplomatic power remain the prerogatives of states. In addition, supra-national organizations and non-governmental organizations increase their influence.

Individuals and governments in this world share such goals as a reasonably equitable distribution of income, equal educational and job opportunities, the peaceful resolution of conflicts, sustainable environmental policies, and individual human rights. Nearly everyone accepts as second nature the benefit of being integrated and connected, and, like the web itself, political and economic structures are increasingly decentralized. That offers a greater opportunity for local political participation of individual citizens.

Security establishments around the world, including that of the United States, are faced with a dilemma. Technological advancements and economic growth create new possibilities

for advanced weaponry. But the world has evolved in such a way that dramatic reductions in threats have occurred and interstate wars have become increasingly unlikely. The United Nations or a similarly representative body assumes a central role in conflict prevention and resolution. As resources shift to social programs and the protection of critical infrastructures, there is tremendous downward pressure on defense budgets. Classic conventional military forces atrophy. Space becomes a realm of cooperation. International regimes have established far more effective controls on the proliferation of weapons of mass destruction.

The United States is an active “partner” with states around the world in promoting cooperation through international institutions. In its military posture, the United States focuses primarily on defensive measures aimed at responding to the few remaining threats. As Americans exercise influence through cooperative international mechanisms, resentment of American and Western culture subsides.

### *Division and Mayhem*

A world of Division and Mayhem could come about by any of several routes. One is uncontrolled technological diffusion that outpaces the legal, moral, and ethical strictures of societies around the world. A second is the accentuation of strains in the globalization process, to the point of touching off a worldwide economic recession and, in time, global chaos. A third is a compound global environmental crisis. The three sources of division and mayhem could occur simultaneously, each reinforcing the other two.

In this world, however it comes to be, global economic growth plummets. Private sector investors worldwide experience a deep crisis in confidence. Investment is limited, and

trade is vastly reduced with the drop in market demand and dramatic increase in protectionist policies. International lending institutions lack funds. The world is characterized by the cohabitation of a small cluster of relatively rich, developed—and mainly Western—states, and a large group of struggling and often very poor states. These states also experience extensive uncontrolled urbanization, environmental degradation, and political fragmentation.

The lofty internationalist principles behind the Internet are rejected; information is marketed and hoarded instead of cultivated and shared. Most developing countries are denied access to technological innovations, either because they cannot afford them, or for fear that they cannot control them properly. In the developed world certain technological developments, especially in biotechnology, outpace the ethical debate over their implications. A new class of biotechnology criminals and cyberterrorists appears and is linked to officials in demoralized and divided governments. Disaffected individuals and groups acquire the technologies necessary to develop the most dangerous weapons, and some are used.

Many states fragment along ethnic, cultural, and religious lines. Disparities in resources lead to or aggravate conflict between groups within societies and among regional states. Increased numbers of displaced persons produce extensive humanitarian disasters and exacerbate environmental problems. Military conflict between and especially within states increases.

Private and non-state militaries are on the rise, while the United Nations and other collective security organizations decline. Military establishments around the world confront a variety of threats. Some are well-funded but others are not, giving rise to abruptly shifting

balances of power, miscalculations, and ruinous wars.

While frequently called on to conduct humanitarian missions and operations other than war, the U.S. military also confronts a number of states, acting alone or in alliance, seeking the final removal of American military power and influence from their respective regions. Throughout this period, the United States invests heavily in military modernization, but low economic growth limits the size of military budgets. In this environment U.S. foreign and defense policy establishments are under increasing strain. The United States also finds itself increasingly isolated and overstretched in attempting to meet its security needs both at home and abroad.

Under such circumstances, deadly attacks on U.S. cities by a terrorist group using weapons of mass destruction cause a sharp re-orientation of basic U.S. policy. The United States reaches out in anger to punish and to root out future sources of such attacks but otherwise pulls back from its commitments in the world at large. Thus deprived of American good will and active involvement in global leadership, a world already plagued by division and mayhem falls further into a spiral of poverty, violence, and fear.

### *A Patchwork Future*

The foregoing scenarios are clusters of likelihood designed to stimulate our imagination. They do not exhaust all the possibilities in our future. Just as the world today simultaneously evinces integration and fragmentation, so too may we expect that future trends will combine to produce a patchwork of consequences rather than any single, logically coherent whole.

The Democratic Peace is the world that could exist for those states where today democracy has firm roots and where economic policies are based on market principles. It may be that certain parts within that domain even move into the world of Globalization Triumphant. States in these domains will continue to have differences, and some serious threats will remain. But these will be amenable to peaceful resolution. The prospects for major interstate war would be small.

But a more pessimistic future is also possible for democratic, free-market states, and it is more likely for the rest of humanity. Societies and governments will find themselves torn between new opportunities and old habits. Particularly critical will be what happens over the next quarter century in major countries such as Russia, China, India, Indonesia, the Philippines, Vietnam, North Korea, Malaysia, Thailand, Egypt, Iran, Turkey, Pakistan, Mexico, Brazil, South Africa, and Nigeria. These states could find themselves in regions characterized by the world of Nationalism and Protectionism or even by the world of Division and Mayhem. The prospect for major interstate war in these domains would be large.

In short, all four scenarios would play out, but in parts. Taken together, the world in the coming 25 years would be regionalized, not in economic terms, but in terms of overarching performance.

Perhaps what matters most will be the world's elemental trajectory. Today's world is divided more or less between a zone of democratic peace and a zone of chronic trouble. Will many members of the former world fall away into the latter, or will many members of the latter find their way into the former? And what will be the relationship between the parts of such a divided world? Can a zone of pros-



perity and relative tranquility remain isolated from the pain, the heartbreak, the refugees, and possibly the diseases of the zone of hardship and turmoil? Answers to all of these questions cannot be known with certainty. They will depend importantly on the policies and strate-

gies to be adopted by countries around the world. The role that the United States will play will be critical as well. But here we must stop, for that is the subject of this Commission's Phase II Report.

## **V: Major Themes and Implications**

The foregoing analysis leads us to the following general conclusions about the world that is now emerging, and the American role in it for the next 25 years.

### **1. America will become increasingly vulnerable to hostile attack on our homeland, and our military superiority will not entirely protect us.**

The United States will be both absolutely and relatively stronger than any other state or combination of states. Although a global competitor to the United States is unlikely to arise over the next 25 years, emerging powers—either singly or in coalition—will increasingly constrain U.S. options regionally and limit its strategic influence. As a result, we will remain limited in our ability to impose our will, and we will be vulnerable to an increasing range of threats against American forces and citizens overseas as well as at home. American influence will increasingly be both embraced and resented abroad, as U.S. cultural, economic, and political power persists and perhaps spreads. States, terrorists, and other disaffected groups will acquire weapons of mass destruction and mass disruption, and some will use them. Americans will likely die on American soil, possibly in large numbers.

### **2. Rapid advances in information and biotechnologies will create new vulnerabilities for U.S. security.**

Governments or groups hostile to the United States and its interests will gain access to advanced technologies. They will seek to counter U.S. military advantages through the possession of these technologies and their

actual use in non-traditional attacks. Moreover, as our society becomes increasingly dependent on knowledge-based technology for producing goods and providing services, new vulnerabilities to such attacks will arise.

### **3. New technologies will divide the world as well as draw it together.**

In the next century people around the world in both developed and developing countries will be able to communicate with each other almost instantaneously. New technologies will increase productivity and create a transnational cyberclass of people. We will see much greater mobility and emigration among educated elites from less to more developed societies. We will be increasingly deluged by information, and have less time to process and interpret it. We will learn to cure illnesses, prolong and enrich life, and routinely clone it, but at the same time, advances in bio-technology will create moral dilemmas. An anti-technology backlash is possible, and even likely, as the adoption of emerging technologies creates new moral, cultural, and economic divisions.

### **4. The national security of all advanced states will be increasingly affected by the vulnerabilities of the evolving global economic infrastructure.**

The economic future will be more difficult to predict and to manage. The emergence or strengthening of significant global economic actors will cause realignments of economic power. Global changes in the next quarter-century will produce opportunities and vulnerabilities. Overall global economic growth will continue, albeit unevenly. At the same time, economic integration and fragmentation will co-exist. Serious and unexpected economic downturns, major disparities of wealth, volatile capital flows, increasing vul-

nerabilities in global electronic infrastructures, labor and social disruptions, and pressures for increased protectionism will also occur. Many countries will be simultaneously more wealthy and more insecure. Some societies will find it difficult to develop the human capital and social cohesion necessary to employ new technologies productively. Their frustrations will be endemic and sometimes dangerous. For most advanced states, major threats to national security will broaden beyond the purely military.

**5. Energy will continue to have major strategic significance.**

Although energy distribution and consumption patterns will shift, we are unlikely to see dramatic changes in energy technology on a world scale in the next quarter century. Demand for fossil fuel will increase as major developing economies grow, increasing most rapidly in Asia. American dependence on foreign sources of energy will also grow over the next two decades. In the absence of events that alter significantly the price of oil, the stability of the world oil market will continue to depend on an uninterrupted supply of oil from the Persian Gulf, and the location of all key fossil fuels deposits will retain geopolitical significance.

**6. All borders will be more porous; some will bend and some will break.**

New technologies will continue to stretch and strain all existing borders—physical and social. Citizens will communicate with and form allegiances to individuals or movements anywhere in the world. Traditional bonds between states and their citizens can no longer be taken for granted, even in the United States. Many countries will have difficulties keeping dangers out of their territories, but their governments will

still be committed to upholding the integrity of their borders. Global connectivity will allow "big ideas" to spread quickly around the globe. Some ideas may be religious in nature, some populist, some devoted to democracy and human rights. Whatever their content, the stage will be set for mass action to have social impact beyond the borders and control of existing political structures.

**7. The sovereignty of states will come under pressure, but will endure.**

The international system will wrestle constantly over the next quarter century to establish the proper balance between fealty to the state on the one hand, and the impetus to build effective transnational institutions on the other. This struggle will be played out in the debate over international institutions to regulate financial markets, international policing and peace-making agencies, as well as several other shared global problems. Nevertheless, global forces, especially economic ones, will continue to batter the concept of national sovereignty. The state, as we know it, will also face challenges to its sovereignty under the mandate of evolving international law and by disaffected groups, including terrorists and criminals. Nonetheless, the principle of national sovereignty will endure, albeit in changed forms.

**8. Fragmentation or failure of states will occur, with destabilizing effects on neighboring states.**

Global and regional dynamics will normally bind states together, but events in major countries will still drive whether the world is peaceful or violent. States will differ in their ability to seize technological and economic opportunities, establish the social and political infrastructure necessary for economic growth, build political institutions responsive to the as-

pirations of its citizens, and find the leadership necessary to guide them through an era of uncertainty and risk. Some important states may not be able to manage these challenges and could fragment or fail. The result will be an increase in the rise of suppressed nationalisms, ethnic or religious violence, humanitarian disasters, major catalytic regional crises, and the spread of dangerous weapons.

**9. Foreign crises will be replete with atrocities and the deliberate terrorizing of civilian populations.**

Interstate wars will occur over the next 25 years, but most violence will erupt from conflicts internal to current territorial states. As the desire for self-determination spreads, and many governments fail to adapt to new economic and social realities, minorities will be less likely to tolerate bad or prejudicial government. In consequence, the number of new states, international protectorates, and zones of autonomy will increase, and many will be born in violence. The major powers will struggle to devise an accountable and effective institutional response to such crises.

**10. Space will become a critical and competitive military environment.**

The U.S. use of space for military purposes will expand, but other countries will also learn to exploit space for both commercial and military purposes. Many other countries will learn to launch satellites to communicate and spy. Weapons will likely be put in space. Space will also become permanently manned.

**11. The essence of war will not change.**

Despite the proliferation of highly sophisticated and remote means of attack, the essence of war will remain the same. There will be casual-

ties, carnage, and death; it will not be like a video game. What will change will be the kinds of actors and the weapons available to them. While some societies will attempt to limit violence and damage, others will seek to maximize them, particularly against those societies with a lower tolerance for casualties.

**12. U.S. intelligence will face more challenging adversaries, and even excellent intelligence will not prevent all surprises.**

Micro-sensors and electronic communications will continue to expand intelligence collection capabilities around the world. As a result of the proliferation of other technologies, however, many countries and disaffected groups will develop techniques of denial and deception in an attempt to thwart U.S. intelligence efforts—despite U.S. technological superiority. In any event, the United States will continue to confront strategic shocks, as intelligence analysis and human judgments will fail to detect all dangers in an ever-changing world.

**13. The United States will be called upon frequently to intervene militarily in a time of uncertain alliances and with the prospect of fewer forward-deployed forces.**

Political changes abroad, economic considerations, and the increased vulnerability of U.S. bases around the world will increase pressures on the United States to reduce substantially its forward military presence in Europe and Asia. In dealing with security crises, the 21st century will be characterized more by episodic "posses of the willing" than the traditional World War II-style alliance systems. The United States will increasingly find itself wishing to form coalitions but increasingly unable to find partners willing and able to carry out combined military operations.

**14. The emerging security environment in the next quarter century will require different military and other national capabilities.**

The United States must act together with its allies to shape the future of the international environment, using all the instruments of American diplomatic, economic, and military power. The type of conflict in which this country will generally engage in the first quarter of the 21<sup>st</sup> century will require sustainable military capabilities characterized by stealth, speed, range, unprecedented accuracy, lethality, strategic mobility, superior intelligence, and the overall will and ability to prevail. It is essential to maintain U.S. technological superiority, despite the unavoidable tension between acquisition of advanced capabilities and the maintenance of current capabilities. The mix and effectiveness of overall American capabilities need to be rethought and adjusted, and substantial changes in non-military national capabilities will also be needed. Discriminating and hard choices will be required.

In many respects, the world ahead seems amenable to basic American interests and values. As to interests, the spread of knowledge, the development of new technologies, and the expansion of global cooperation will present vast opportunities for economic growth and the rise of political liberalism. The size of the world's middle class may increase many times over, lifting literally tens of millions of people from the depredations of poverty and disease. Authoritarian regimes will founder as they try to insulate their populations from a world brimming with free-flowing information. We may thus bear witness to the rise of new democracies and the strengthening of older ones. Taken together, these developments could reduce sharply the prospects for violent

conflict, and augur for a more peaceful world. All of that is very much in the American interest and provides real opportunities for the United States in the future.

As to values, a world opened up by the information revolution is a world less hospitable to tyranny and friendlier to liberty. A less socially rigid, freer, and self-regulating world may also be in prospect, a joint result of the anti-hierarchical implications of the information revolution and the post-Cold War normative tide toward representative government. If so, such a world would accord with our deepest political beliefs and our central political metaphor—that of the dynamic equilibrium—which finds expression in the “invisible hand” of the market, our social ideal of *E Pluribus Unum*, the checks and balances of our Constitution, and in the concept of federalism itself.

Nevertheless, a world amenable to American interests and values will not come into being by itself. Much of the world holds different interests and values. They also resent and oppose us for the simple fact of our preeminence, and because they often perceive the United States as exercising its power with arrogance and self-absorption. There will also be much apprehension and confusion as the world changes. Fragmentation and integration will proceed simultaneously at different levels, as will centralization and de-centralization. Our vocabularies will fail us as old boundaries blur: between homeland defense and foreign policy; between sovereign states and a spectrum of protectorates and autonomous zones; between virtual and literal communities.

All of this suggests that threats to American security will be more diffuse and harder to anticipate than ever before. While the likelihood of major conflicts between powerful states will decrease, conflict itself will likely change in character and increase in frequency. Deterrence



will not work as it once did. In many cases it may not work at all.

In navigating the new world, the United States will need to find a proper balance between activism and self-restraint. No power, no matter how strong, will be able to manage or control international politics. American pragmatism and historic optimism have their limits. To overreach is to fall prey to hubris, and if we seek to exercise control over events beyond what reality can bear, we will end in frustration, recrimination, and ruin.

But humility is not a prescription for policy passivity. If we are agile in the new century that stands before us, change will be our ally. It makes sense for the United States to bias the strategic environment in its favor to the extent possible and prudent, and to try harder to

prevent conflict so that there will be less need for diplomatic triage after the fact. A great nation that does not try to influence the future may end up as its victim. That will be as true for the next 25 years as it has been for at least the last 2,500.

The world that lies in store for us over the next quarter century will surely challenge received wisdom about how to protect American interests and advance American values. In such an environment, the United States needs a sure understanding of its objectives, and a coherent strategy to deal with both the dangers and the opportunities ahead. It is from this Phase I Report that the U.S. Commission on National Security/21<sup>st</sup> Century will develop that understanding, and build that strategy. We do so from what we believe is a firm foundation.

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The Commission and Staff worked with many non-profit organizations, corporations, and public policy institutions. These include: the International Institute for Strategic Studies; the Woodrow Wilson Center; the Nixon Center; the Brookings Institution; RAND; the Center for Naval Analyses; the Institute for Defense Analyses; the Center for Strategic and International Studies; the Center for Strategic

and Budgetary Assessments; the Carnegie Corporation; the National Institute for Public Policy; the CATO Institute; the Center for Defense Information; Toffler Associates; Science Applications International Corporation; Global Business Network; DFI International; Lockheed-Martin Corporation; the World Bank; the International Monetary Fund; Organisation for Economic Co-operation and Development; Standard and Poors' DRI Group; Wharton Economic Forecasting Associates; the National Guard Association; the East-West Center; and the International Foundation for Election Systems.

The Commission met with many individuals from governments as well as public and private organizations in the United States and overseas in the course of workshops, seminars, and interviews. Others assisted the Commission

with itineraries and contacts, and countless others provided information, made presentations, or reviewed draft papers.

Thousands of people in this country and around the world have also assisted us over our interactive website. Since the site opened to the world in March 1999, it has been "hit" over 700,000 times. We have also received more than 400 archived substantive comments from all over the country and some from outside the country as well. The "Future Tech Forum" was especially helpful in generating sources of information for this report. This is the first time that any U.S. national commission has developed a means of communicating interactively with the American public-at-large during the active research phase of a study. The website will remain open and operating for the duration of the Commission's work at [www.nssg.gov](http://www.nssg.gov).

